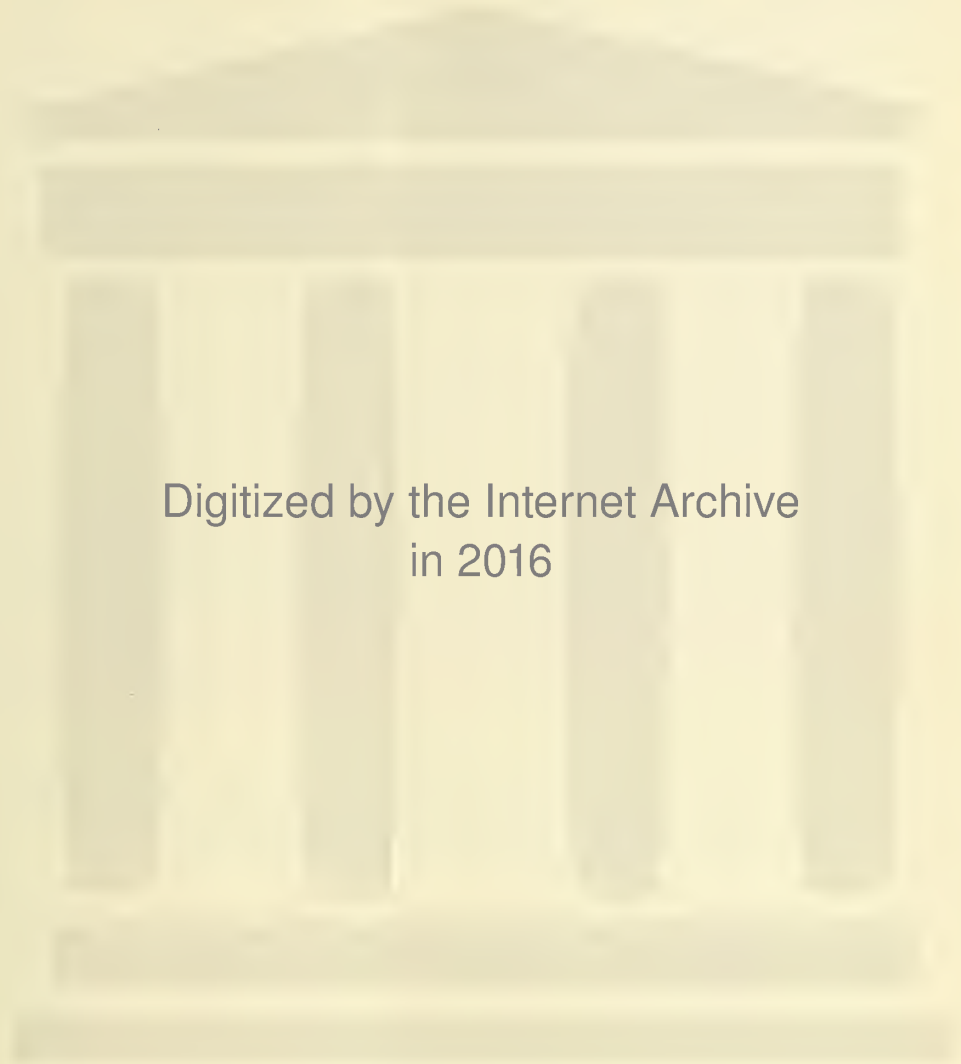
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Scientific Articles

Newer Knowledge of the

Common Hereditary Bleeding Diseases

ARMAND J. QUICK, M.D.

MILWAUKEE, WISCONSIN

It is a rather surprising fact that at least nine distinct hemorrhagic diseases are congenital in origin and probably are hereditary. Although all of them are relatively rare, they are not to be regarded as oddities. Rather, they are important sources of information not only in regard to hemorrhage but also in regard to the nature of heredity.

VASCULAR HEREDITARY HEMORRHAGIC DISEASES (ANGIOSTAXIS)

Of the nine congenital bleeding conditions that are known, two are generally supposed to result from a defect in the vessel rather than in the blood. They are telangiectasia and von Willebrand's disease. The former is characterized by spider-like nevi which become predisposed to injury and then give rise to serious bleeding.

Telangiectasia has a number of interesting aspects. It is essentially a degenerative disease, for the typical lesion, the spider angiomata, often appears only in the third decade of life. The defect is transmitted as a non sex-linked simple dominant. How the lesion is produced has not been determined. The two most likely hypotheses are (1) that an intrinsic weakness exists in the peripheral vascular system and (2) that there is a deficiency of an agent which is required for maintenance of the normal state of the vascular system. The fact that telangiectatic lesions may occur in severe liver disease lends some support to the latter possibility.

Like telangiectasia, von Willebrand's disease is not especially uncommon. It is certain that many mild cases of it are never diagnosed. Both diseases are transmitted as simple dominants. Or perhaps it is more accurate for one to say that they are transmitted as partial dominants. Half of the children of a parent having the disease will inherit the defect. Whether the abnormality in von Willebrand's disease is intrinsically in the vessel or whether it is in the blood remains undetermined. The ordinary clotting tests are all normal. It is particularly confusing that the bleeding time may at times be normal and at other times be markedly prolonged. The disease undoubtedly has been confused with mild hemophilia on occasion, and von Willebrand had some justification in referring to it as "pseudohemophilia."

HEMATOLOGIC HEREDITARY BLEEDING DISEASES (HEMATOSTAXIS)

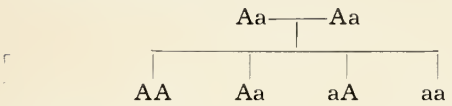
According to the classical theory, thromboplastin and calcium react with prothrombin to form thrombin. The discovery of the labile factor in 1943[1] initiated a new development which has led to the discovery that prothrombin activity requires at least two accessory and additional factors, the labile and the stable factors, and that the formation of thromboplastin depends on platelets and two or more plasma constituents, one of which, thromboplastinogen, is deficient in hemophilia. The reality of these new factors has been conclusively proved by the discovery of congenital clinical conditions in which a particular factor is markedly depleted.[2] In all of the known hereditary diseases, a clotting factor is lacking. In none of them is there valid evidence that the bleeding is caused by an inhibitor or by an excess of an anticoagulant.

Except for hemophilia and possibly the newly discovered entity variously called plasma thrombo-

Dr. Quick is a professor of biochemistry at Marquette University School of Medicine.

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plastin component (P.T.C.), Christmas disease or hemophilia B, all the known hereditary bleeding diseases are transmitted as non sex-linked. Afibrinogenemia serves as a suitable illustration. The defect seems to be carried in a specific gene or allele. In the heterozygous individual—i.e., the person in whom the defective allele is counterbalanced by a normal partner—the deficiency of fibrinogen is subclinical. Only when both alleles are defective or, in other words, in the severe case does the almost complete absence of fibrinogen occur. Obviously, an afibrinogenemic subject must inherit a pair of defective alleles, one from each parent. If one labels the normal gene "A" and the defective gene "a," one can easily show what the hereditary pattern will be. The heterozygous will be Aa. If he marries a heterozygous mate, the offspring will be as follows:



Theoretically, only one out of four children will have afibrinogenemia. If one takes into consideration the rarity of the disease, he can see that the incidence of heterozygousity must be extremely low. The chance, therefore, of marriage between two heterozygous individuals is very remote, and even if such a mating occurs, the odds are 4:1 against a homozygous or defective child being born to them. Thus, not only cases of afibrinogenemia but cases of several of the other congenital bleeding diseases are rare.

In several of the conditions, no means or tests are available for detecting the heterozygote. In congenital hypoprothrombinemia vera, for example, both the parents and the grandparents in one family have been found to be entirely normal as regards the one-stage prothrombin time. In stable-factor deficiency, the heterozygous individual is found to have a slightly but persistently prolonged prothrombin. A careful study of one family disclosed that a couple both of whom were heterozygous were the parents of a child with a severe stable-factor deficiency and a serious bleeding tendency. In the same family group, one of the other children, a boy, and one of the grandfathers were heterozygous. It is highly probable that congenital labile-factor deficiency has a similar hereditary pattern.

In contrast to the heredity of afibrinogenemia or of stable-factor deficiency, hemophilia presents an entirely different pattern. Because the defect is located in the X chromosome, the abnormal gene can be counterbalanced only by another gene from an X chromosome, since the Y chromosome does not carry genes. Thus, only in the female can the defective gene have a normal partner, and since the defective gene is recessive, the woman is not a bleeder. In contrast, all males who inherit the hemophilic gene will have the disease in the active form. One is tempted to speculate about the reason for the location of the so-called hemophilic gene in the X chromosome and for its consequent sex-linkage. Are they purely accidental circumstances, or have they an underlying teleologic significance?

Recent studies carried out in our laboratory have established fairly conclusively, first, that the basic defect in hemophilia is a marked deficiency of a specific factor, thromboplastinogen, and, second, that the defect is quantitatively transmitted from generation to generation.[3] The practical importance of this latter finding is that if the hemophilic condition is mild, it will continue to be so in that one family.

Through the perfecting of the therapy that enables the hemophiliac to live, modern medicine has created a new sociologic problem. In the past, the incidence of hemophilia remained low because the afflicted males died. Since half of the offspring of the carrier were normal, the defect was gradually diluted. Now, since many males will reach adult life, marry and have children, the incidence of the disease will practically double, according to the law of probability. It is certain, then, that general practitioners will see increasing numbers of hemophiliacs.

Fortunately, however, encouraging progress has been made in the management of the disease. The time has arrived for laying aside the dramatics and the unrealistic attitude toward hemophilia, as well as toward the other hemorrhagic diseases. The physician must roll up his sleeves and go to work with the equipment that research in this field has made available to him.

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DEAN ASKS FOR NEW MEDICAL SCHOOLS

A. C. Furstenberg, M.D., dean of the University of Michigan School of Medicine told the House of Delegates of the Michigan State Medical Society on September 26, 1955, that his state needs a third medical school now, and that by 1975 it will need a fourth.

The University of Michigan and Wayne University educated no more than 38.3 per cent of the physicians now practicing in the state, and a yearly average of 266 are coming from outside. Attention has been called to the fact that the clinical material at the world's largest hospital, Eloise, in Detroit, is not being used for teaching purposes.

A Discussion of

Several Items of Importance to General Practitioners

L. B. WILLIAMS, M.D.

MAQUOKETA

In this day and age, fewer people are dying from acute illnesses, and more and more are living long enough to become the victims of the heart diseases, cancer, arteriosclerosis and strokes, both large and small, or the progressive entity of senility. With each advancing decade, in short, the American people (and the world) are receiving better and better medical care. All of us are gratified to see that specialists are becoming more readily accessible to the public, as they increase in numbers and become better distributed throughout the country. But specialists are not the only physicians who are doing good work. Patients are also being effectively treated in the "burgs" and the "villes" by general practitioners.

As a member of the latter group, I should like to offer my fellow non-specialists a "potpourri" of isolated technics that have proved beneficial to me. And I hope that by so doing I can encourage them to publish similar miscellanies. My own experience in general practice has been short, but since it has yielded me several ideas that appear valuable, I am sure that the minds of other general physicians must be well-filled storehouses of technics and information from which the medical profession might benefit, were it not for their reluctance to write for the journals.

This hesitancy, I am sure, is due to a feeling of humility on the part of the general practitioner. The family doctor (if that is what he should best be called) usually has no formidable series of cases from which to draw statistically valid conclusions, and he is overawed by the many articles, some of them almost classics, in which specialists or department chiefs with years of clinical and research experience in large medical centers have tabulated and analyzed their findings.

But therapeutic innovations are by no means unworthy of consideration simply because their discoverer has lacked opportunities for testing them exhaustively. Such may not be in accord with the scientific method as it has been outlined by our predecessors, but each G-P has subjected his original methods to some highly rigorous, though unorthodox, trials—and those trials aren't the kind that are one year's experience repeated 50 times.

I have selected eight items for discussion in this paper, and I feel certain that almost any of my readers could match them twice over with roughly similar ideas of his own—ones from which all of us, and all of our patients too, might profit. My subjects are, for the most part, a representative sampling of the common problems that confront the doctor as he ushers the halt, the maimed and, at least temporarily, the blind into his examining room.

REPAIR OF MINOR LACERATIONS

The closure of a minor laceration is the most frequently performed surgical operation the world over. The accepted routine requires that one cleanse the area, debride and irrigate if necessary, infiltrate with procaine, administer a parenteral antibiotic, and inject tetanus toxoid or do a skin test and inject tetanus antitoxin. Let us forget this cold printed page for a moment, and try to see what this regimen means to the patient. It consists of five painful procedures—or even six, if a skin test of antitoxin is used.

Could we make it easier for the patient? In my practice, I have altered several of these steps for the sake of the patient's comfort and also to save myself some time. I sincerely believe that infiltration with procaine should be the first step in the procedure. True, one must insert a needle through a contaminated field into virgin tissue, but it is quite unlikely that infection will occur if one administers antibiotics at the same time. The anesthetic mixture that I use is a mixture of the necessary amount of 2 per cent procaine with 300,000 units of procaine penicillin in the same syringe. Thus, anesthesia and the parenteral introduction of an antibiotic are accomplished simultaneously. I shall not venture to say whether or not it is advantageous to put the antibiotic into the contaminated area rather than into the buttock, two or three feet away, but it is a point which is well worth considering.

Further, there is no contraindication to the injecting of the tetanus toxoid into the anesthetized area after closure of the wound. This holds true for the antitoxin as well. The blood supply and the absorption are not impaired if it is given in a known vascular area, especially one that is proximal to the wound. I think we should all agree, however, that it is inadvisable to give the antitoxin skin test in a traumatized and macerated area. Therefore, if one is necessary, it should be given in the usual place on the forearm.

It would be logical, I suppose, to propose that the toxoid mixture be put into the same syringe with the procaine and the penicillin, but since it is not known whether or not the effectiveness of the toxoid would be impaired by such a technic, I do not advise it.[1]

These changes that I have outlined reduce the closure of a minor laceration to a single episode of pain. After the infiltration of the anesthetic mixture, the surgical closure can be performed and several parenteral injections can be given in the anesthetized area. When the patient is a youngster and when one doesn't happen to have a small-sized straightjacket in which to immobilize him, every means of reducing pain has its advantages.

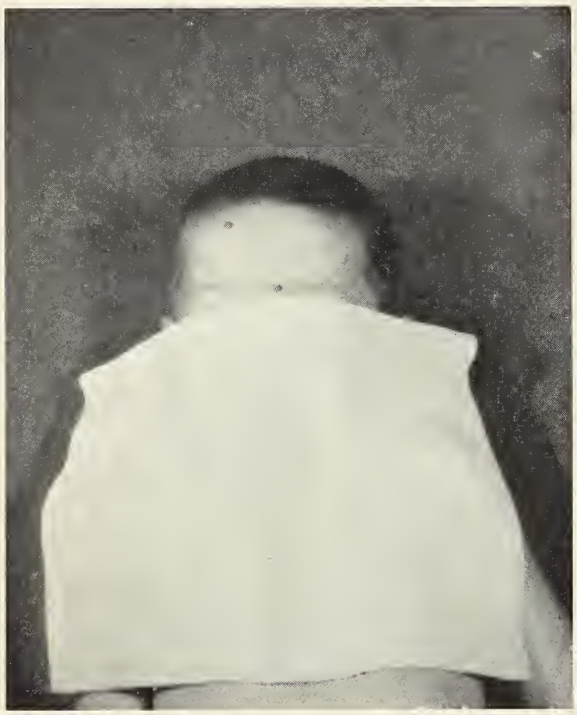


Figure 1. Wound closure by subcuticular stitch (left) and by perforated plastic tape (right).

Securing cosmetically desirable closures in lacerations, particularly those of the face, is the second of my topics. All of us have been guilty of "throwing in" a few button-hole stitches in closing facial wounds. After all, they are simple. Instead, every practitioner should become an expert in the subcuticular dermalon stitch fixed at each end by means of a split shot, a surgical accessory that he can find quite easily in his fishing kit (Figure 1). It may be preceded by subcutaneous catgut sutures if necessary. As usual, early removal is indicated, and no stich marks will be in evidence.

Many short but gaping lacerations can be finely approximated by means of a narrow strip of Scotch Tape or other plastic tape applied across the wound edge. If he thinks it necessary, the doctor can apply tincture of Benzoin for its adhesive qualities before he affixes the tape. Some will maintain that fine steel wire, through and through, is the suture of choice in all facial lacerations, and it is quite true that a jagged, contused facial wound may be no more than inadequately controlled by means of subcuticular stitching.

INJURIES TO THE CORNEA

A general practitioner sees many small foreign bodies such as sand or metal filings imbedded in the cornea. Accidents with these results are usually classified as industrial, but their victims frequently are farmers, blacksmiths (amateur or vocational) or small boys who have fiddled with their fathers' emery wheels. The local physician can handle these injuries easily, but there are certain technics that he should review.

When he has anethetized the cornea with any of the recommended agents, he can easily pick out the imbedded body with the help of a No. 25 hypodermic needle, without damage to the surrounding cornea. An eye magnet is handy for removing any of the minority of foreign bodies which are susceptible to magnetic attraction. But in a mistaken attempt to be "gentle," both laymen and physicians are guilty of wiping cotton tips across the cornea in their attempts at snaring a particle. Flourescein stain, after such a procedure, reveals a broad swath of trauma to the superficial layers of the cornea, no matter how gentle the operator has tried to be.

A small rotating burr of the sort that dentists use is a tool that can be employed in the removal of the halo of discoloration that rusty particles or ones that have been heated by friction leave upon the surface of the cornea. I don't feel that antibiotic therapy is very often needed in the treatment of superficial corneal wounds. Instead, in my own practice, cortisone drops have prevented most of the disastrous complications of simple foreign-body removal, such as corneal opacity and a rare iritis.

When the anesthesia wears off, the patient usually has severe pain, and the physician must stumble out into the night to bring him relief and sleep. The pain, rather than originating in the cornea, comes from the alternating dilation and constriction of the pupil, which is subject to a reflex irritation from the cornea and can't make up its mind. A small amount of atropine or homatropine when the patient leaves the office will insure a relatively smooth recovery.

MANAGEMENT OF URINARY OBSTRUCTION

The definitive management of urinary obstruction is within the realm of the qualified urologist, but I venture to say that with the arrival of

cold weather many a general practitioner is called upon to relieve some kind old gentleman who is in excruciating distress from acute urinary retention. It is probable that all of us proceed with an identical routine (and often get the same results). The doctor's first attempt to pass a catheter meets with no success, he fails the second time though he uses a smaller catheter, and his third attempt, this time with a wire guide, is equally unrewarding. He then turns to a filiform and a follower, then to a corkscrew filiform—all with exasperating lack of result. Next, he inserts multiple filiforms in the urethra, hoping to fill the blind pockets so as to provide an escort that will assist the final filiform into the bladder. By that time, a little blood may very well have been deposited on the sheet, and the patient has begun to wonder whether the physician knows what he is doing, and the bladder is still full.

There is a simple procedure by which the patient can then be relieved promptly. It consists of inserting a spinal needle into the bladder directly through the suprapubic area and draining off the urine. It is a practical procedure that is not the product of research, but it gets the job done and relieves the patient. Obviously, it is not the sort of technic with which professors in the medical schools concern themselves, for when, in succession, I outlined the situation to the preceptees who were assigned to me, the answer was not forthcoming.

REPAIR OF FRACTURES

The fifth of my topics concerns the activities of the general practitioner in the field of orthopedics. Most simple and uncomplicated fractures can be, and are, treated by the general man. And in addition, it seems to me that in the age of antibiotics some of the compound fractures and internal fixation cases can likewise be treated by the nonspecialist (and when I say this, I don't mean to suggest the use of antibiotics as a means of escaping the consequences of sloppy, unsterile technic or as a cornerstone for the basic principles of bone carpentry).

I should like to preface my remarks by suggesting that before he scrubs, the general practitioner should clear his instrument cabinet of the wire, screws, plates, brads, corkscrews and other queer looking pieces of steel that he finds there and should deposit them in the trash can. That precaution is especially necessary to the man who is about to start meddling near a joint surface.

The fracture should be reduced by simple traction, and if further internal stability is needed, anyone who has a knowledge of basic carpentry can insert a Kirschner wire. Since it is removable, it can be used with impunity, provided that a joint surface has not been violated. When applied obliquely through a transverse fracture, it provides effective internal fixation, and when used through and through, from tibia to fibula or from radius to ulna, it provides very firm support. Then, application of plaster and postoperative splitting of the cast will assist nature in healing most fractures, whether displaced, compound or what have you. These statements of mine are general, and one should, of course, exercise judgment in applying them to particular cases.

Parenthetically, I should like to quote a statement that a nationally known orthopedist made to me. He said that if one of his own bones had been broken, he would prefer to be treated by a surgeon who had had a great deal of trouble in a few previous cases, rather than by one who had had a career made up of an uninterrupted series of successes. His point was that surviving a few nightmares in orthopedics helps to mature a doctor's judgment and to temper his hand.

Allow me to say, if you will, that I recognize the orthopedics specialist as a most welcome friend of the general practitioner and that I don't want to relegate him to the ranks of the unemployed. The increasing numbers of bizarre and appalling multiple injuries to bone and soft tissue that are by-products of our machines will certainly provide him adequate uses for his skills.

Another orthopedic item that I wish to present is a method of leg traction which is very simple and which avoids the traumatic and allergic complications resulting from the application of adhesive or sponge rubber to the skin. Salzman[2] re-

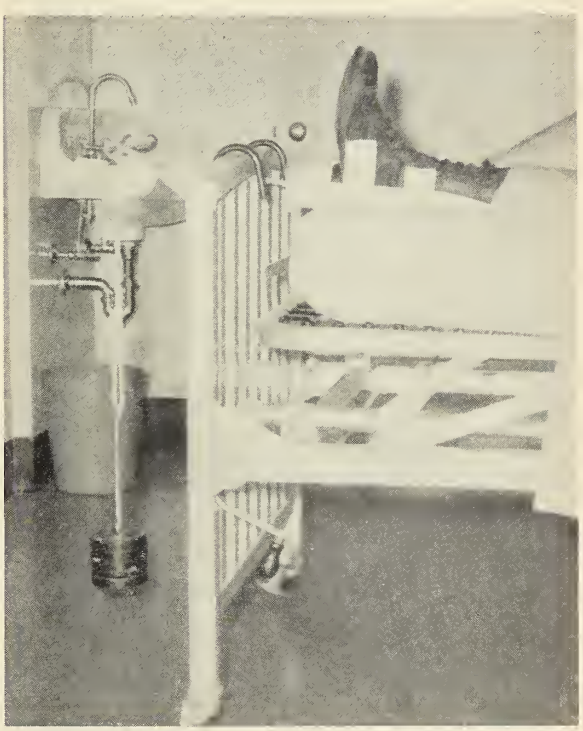


Figure 2. Leg traction by tape fixation to high leg boot.

cently demonstrated a modified technic for traction using moleskin, but the following method may also prove useful. A high shoe or boot (such as a combat boot) is put upon the patient's foot. It may be the patient's own shoe or boot, if he has one of a suitable type, or someone else's can be used, for since he isn't to walk in it, a perfect fit isn't essential. Adhesive tape is applied to it, beginning inside the top and extending laterally down both sides to a wooden spreader block, to which the traction rope is attached (Figure 2). The boot gives firm traction, it is non-traumatic, and it may be removed for short periods for ambulation, if the particular case permits anything of the sort. It is highly desirable for Bryant's traction in femoral fractures in children, since the use of tape in that technic virtually always produces either minor or major skin complications.

FOREIGN BODIES IN THE DIGESTIVE SYSTEM

Though I have already presented it in a previous issue of this JOURNAL,[3] I want to make at least a brief mention of my scheme for removing magnetically susceptible foreign bodies from the esophagus and stomach by means of a small, cylindrical Alnico magnet attached to a Levine tube. The details are not appropriate here, but this procedure may save the patient a gastrotomy or a more formidable duodenotomy as the result of the object's perforating a wall or becoming impacted. Most foreign bodies, as we all know, are passed, but some are not, and for that reason a reminder to the practitioner is in order. Besides, if I may employ a bit of grim humor, it is not nearly so dramatic for one to find a darning needle or safety pin in an infant's stool as it is to find it at the end of his probing instrument!

HEMORRHAGE OF THE NASAL PASSAGES

The control of hemorrhage from high in the nasal cavity or in the nasopharynx can tax the patience and ingenuity of a physician to the limit. Hypertensive hemorrhage and postoperative bleeding from an adenoid bed are especially troublesome. An ingeniously simple procedure has been reported by Strong[4] which, I hope, has already been adopted by many physicians for treating these difficult cases. It has proved itself many times over as a simple, quick and effective method, and it is one of the technics that I have been particularly anxious to recommend.

We have all been through the rigors of treating a hypertensive patient with a copious nasal hemorrhage. Routine nasal packing, chemical shrinkage, etc. are often ineffectual. All too often, such a patient exsanguinates with a full stomach, and, in borderline syncope (shock) vomits during the retrograde insertion of a large wad of vaseline gauze. The increasing degrees of blueness and blackness of the patient's complexion and the distribution of hemoglobin throughout the room are enough to make the doctor join the relatives out in the hall and to start wringing his hands.

In short, the new technic involves the insertion of a Foley catheter through one nares until the tip is visible beyond the uvula, and inflation of the bag with about 10cc. of water. My refinement of the procedure is the substitution of air for water, because of air's great moulding qualities and the lesser likelihood of trouble if the bag should rupture in an unconscious patient. When the catheter has been withdrawn, the balloon is tightly impacted against the choana and can be held in traction by a screw clamp (Figure 3). If necessary, vaseline gauze can then be packed against the solidly impacted balloon from the anterior nares. It is advisable first to anesthetize the nares with one of the usual agents.



Figure 3. Inflated Foley catheter in place for control of nasopharyngeal bleeding. Moderate traction is maintained by screw clamp.

This procedure must be considered a major technical advance over the retrograde packing of the choana that involved inserting of catheters through the nose and drawing a large wad of vaseline gauze or other material into the nasopharynx. Patients treated by the older method have been among the most uncomfortable people whom it has been my displeasure to see.

The practitioner may also find frequent use for this new technic in postoperative adenoidal bleeding, for it saves the patient from a precarious second anesthesia of the morning. This reliable method will get the doctor to his office

earlier and with an easy mind, it will save the parents from distress, and it will insure the patient's being alive in the recovery room.

This same principle, incidentally, has been employed in the control of massive postoperative hemorrhage following hemorrhoidectomy. One uses a large bag catheter like that which is employed for a barium enema. The bag is inflated to a considerable size, and traction is maintained by means of weights which hang over the edge of the bed. The bag is large enough to exert good pressure on the hemorrhoidal vessels which are the usual offenders in massive bleeding of this sort.

MEDICAL MANAGEMENT OF PEPTIC ULCER

There is a pressing need for general practitioners to review some common sense principles in the medical treatment of peptic ulcer, especially in reference to the kind of antacid that should be given. Since we are told that one out of every 10 or 15 of our neighbors has a duodenal ulcer, antacids may well be the most commonly prescribed medication in doctors' offices. That statement certainly is true if we count in the cases of "nervous stomach" or obvious "pre-ulcer" patients who throughout their sleeping hours are pouring excess amounts of acid upon a duodenal mucosa well prepared for erosion by the previous day's activities. This latter group undoubtedly benefits from some form of antacid treatment.

There are a great many antacid preparations on the market which probably do the neutralizing job well, but which are fairly expensive if used as they should be—i.e., almost continuously. In my opinion, "t.i.d." doses of antacid do not constitute a strict ulcer regime; they need to be given every two hours, or every hour, or every 15 minutes if need be, so as to coat the active ulcer protectively. Let us all remind ourselves that, as Kirsner has said,[5] the most potent antacid is calcium carbonate. In his opinion, it has fallen into disrepute only because it costs just a few cents a pound!

An excellent compound is marketed in tablet form. Aside from calcium carbonate, it contains bismuth subcarbonate, and it includes magnesium carbonate as a mild cathartic to correct the constipating effect of the principal ingredient. Massive and thorough ulcer therapy is available, then, at minimum cost.

As a passing reminder, I might add that every practitioner should be alert for the "milk-alkali" syndrome when treatment of peptic ulcer has continued for a long period.

Ironically, calcium carbonate is the compound in most proprietary "heartburn" tablets that are advertised to the public and are purchased in astronomical numbers by hordes of our fellow men who have found that life is literally hitting them in the stomach.

SUMMARY

1. A general essay has been presented in an effort to encourage publication by general practitioners.

2. Several random subjects and technics have been discussed that are of importance to general practitioners.

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"—To See Ourselves as Others See Us"

A survey conducted by the Los Angeles County Medical Society in an attempt to discover people's attitudes toward physicians has turned up some data that are gratifying and some that are utterly amazing. The 360 adults questioned included 51 influential citizens (labor leaders, clergymen, teachers, businessmen, elected officials, etc.) and 309 from the general public.

1. Seventy-five per cent had a family doctor.

2. Eighty-five and a half per cent called their doctor's attitude toward them "kindly" or "sympathetic."

3. More than half had changed physicians because of dissatisfaction (54.3 per cent).

4. According to 77.5 per cent of them, an osteopath is a medical doctor who has specialized.

5. Eighty-three per cent confused internists with interns.

6. The public seemed of the opinion that "all" doctors are more competent to diagnose different diseases than to perform different surgical procedures.

7. The people who were interviewed failed to think of the cost of medical education in attempting to explain why a physician gets a relatively high price for his time. They spoke only of "equipment, tools, utilities and rent."

8. About 75 per cent would prefer to prepay their doctor bills, rather than their hospital bills.

9. Fifty per cent think that doctors sent patients to particular pharmacies, and 33.9 per cent think pharmacists pay commissions on such business.

10. Eighty-two per cent opposed compulsory health insurance. Among the influential citizens the percentage was 91.5.

A Five-Year Study of

Fetal and Newborn Mortality

At Iowa Methodist and Blank Memorial Hospitals, Des Moines

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This is a critical review of the records on fetal and newborn fatalities among 10,438 consecutive hospital births at Iowa Methodist Hospital and Blank Memorial Hospital for Children, Des Moines, during the period from January 1, 1949, to December 31, 1953. Its purpose is to evaluate the effectiveness of obstetric and pediatric practice in relation to perinatal mortality there.

The statistical data to be presented include total fetal and newborn mortality, term infant mortality and premature mortality. The figures concerning term infants have to do only with those infants who died in the immediate postnatal period. Those for premature infants concern only those prematures born at Iowa Methodist during the five years covered by the study.

Causes of death have been reviewed and analyzed for premature infants, term infants and stillbirths. Most reported studies of neonatal mortality do not separate term from premature infants in analyzing causes of death. In this review, however, it seemed desirable to discuss them separately for the following reasons: (1) the premature infant demands and receives distinctive specialized care, (2) the physiologic handicaps of the premature infant predispose it to increased hazards not encountered by the term child, and (3) the incidences of the various causes of death among premature infants are significantly different from those among term infants.

As the hospital charts of newborn deaths were reviewed, it was found that two or more significant causes of death had frequently been recorded. In such instances, the cause that was considered primary was used. Because autopsies had been performed on only about 50 per cent of term and premature infants, the cause of death available for use in this study had to be derived from recorded clinical observation in some instances and from pathologic examination records in others.

STATISTICAL DATA

During the five years, from 1949 through 1953, there were 10,438 infants born on the obstetrical service (Tables 1 and 2). Total live births numbered 10,319, and stillbirths 119. The infant deaths totaled 312, or 2.9 per cent of all births. Stillbirths accounted for 38 per cent of infant deaths. Of the 10,319 live births, there were 193 newborn deaths. The premature weight group contributed 139 of those, or 72 per cent. The mortality rate for newborn during the five-year period was 18.7 deaths per 1,000 live births. During the period covered by the study, there was a gradual increase in the total number of births, and of live births, but the total number of infant deaths also increased. There was no significant reduction in fetal and newborn mortality during the five years, the rate in 1949 having been approximately the same as that for 1953.

TABLE 1

FETAL AND NEONATAL MORTALITY (1949-1953)

Year	*Deliveries*	*Deaths*				*Mortality Rate*
		TERM	PREMATURE	STILLBIRTH	TOTAL	
1949	1870	11	24	22	57	3.048
1950	1904	12	25	24	61	3.203
1951	1993	10	32	26	68	3.411
1952	2326	13	22	22	57	2.450
1953	2345	8	36	25	69	2.942
	10,438	54	139	119	312	2.989

TABLE 2

NEWBORN MORTALITY RATE (1949-1953)

Year	*Livebirths*	*Newborn Deaths*			*Deaths Per 1000 Livebirths*
		TERM	PREMATURE	TOTAL	
1949	1848	11	24	35	18.93
1950	1880	12	25	37	19.14
1951	1967	10	32	42	21.35
1952	2304	13	22	35	15.19
1953	2320	8	36	44	18.96
	10,319	54	139	193	18.70

Fetal Mortality. In 1950, the World Health Organization recommended the following definition of fetal death: "Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movements of voluntary

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muscles." The State of Iowa, however, requires registration of only those fetal deaths past 20 weeks' gestation. Thus, in this study, all fetal deaths, regardless of weight but past 20 weeks' gestation, have been included.

Prior to 1950, fetal deaths were reported in terms of mortality per 1,000 live births.[1] The stillbirth rate at Iowa Methodist Hospital, it should be noted, is calculated in terms of fetal deaths per 1,000 total births, for that is now the recommended method of computation. The relatively small number of stillbirths for the five-year period, however, precludes one's making any significant error when he undertakes to compare the figures reported here with those reported elsewhere, even though some of them may have been arrived at by the older method. For 1950 and 1951, the average fetal death rate for whites in the United States was 16.6.[1] The stillbirth rate at the Chicago Lying-In Hospital between 1941 and 1946, for a number of deliveries comparable with ours, was 12.6.[2] Very few hospitals report rates as low as 10. The rate at Iowa Methodist for the five-year period studied was 11.4 (Table 3).

TABLE 3

TOTAL BIRTHS, LIVEBIRTHS, AND STILLBIRTHS FOR FIVE YEARS (1949-1953)

Year	*Deliveries Per Year*	*Livebirths Per Year*	*Stillbirths Per Year*	*Stillbirths Per 1000 Births*
1949	1870	1848	22	11.76
1950	1904	1880	24	11.55
1951	1993	1967	26	13.04
1952	2326	2304	22	9.07
1953	2345	2320	25	10.66
	10,438	10,319	119	11.40

Describing the specific primary causes for many fetal deaths is difficult. Only in those institutions where autopsy rates are high and where accurate detailed information can be obtained from hospital records has it been possible for investigators to make an adequate determination of the factors primarily responsible. Iowa Methodist, unfortunately, is one where the majority of fetal death records are incomplete and where postmortem examinations are relatively infrequent.

The stillbirth autopsy rate during the five years studied was only 26 per cent. In the autopsied cases—no more than 31 in all—only seven revealed a definite pathologic change. Of those seven, there was one each of the following: anencephalus, hydrocephalus, fetal endocarditis with pulmonary stenosis, acute bilateral pneumonia, hemorrhage of the right lung, epicardial and subcapsular hemorrhage, and cardiac dilatation with petechiae of the pericardium. The infant with pneumonia died antepartum following early rupture of the membranes. The three infants with evidence of hemorrhage may have died from intrauterine anoxia, although there was no factor recorded on the birth record which could have contributed to it.

In this study, one or more complicating factors were listed as contributing to 85 of the 119 fetal deaths (Table 4). These are classified according to

TABLE 4

COMPLICATIONS OF PREGNANCY AND DELIVERY CONTRIBUTING TO STILLBIRTH (1949-1953)

Premature Separation of the Placenta	17
Placenta Previa	6
Abnormal Presentations	3
Polyhydramnios	2
Infarcted Placenta	2
Placenta Acreta	1
Prolapsed Extremities	3
Early Rupture of Membranes	2
True Knot in the Umbilical Cord	4
Strangulation of Fetus by Cord	5
Twisted Umbilical Cord	2
Occult Prolapse of Cord	1
Constriction of Cord by Fibrous Band	1
Atresia of Cord	1
Thrombosis of Cord	2
Prolapsed Cord	8
	60

MATERNAL FACTORS CONTRIBUTING TO STILLBIRTH

Bicornate Uterus	1
Maternal Toxemia	12
Trauma to the Abdomen	1
Diabetes Mellitus	2
Acute Glomerulonephritis	1
Self-Induced Abortion	1
	18

FETAL ABNORMALITIES CONTRIBUTING TO STILLBIRTH

Congenital Anomalies	13
Anencephalus 8	
Congenital Heart Disease 1	
Hydrocephalus 2	
Spina Bifida with Myelomeningocele 2	
Erythroblastosis	5
Pneumonia	1
	19
No Recorded Contributing Factors or Obvious Cause of Stillbirth	34

maternal complications, fetal complications, and complications of pregnancy. Obviously, gross fetal abnormalities may be considered as primary causes of death. Yet any attempt that one might make to evaluate the importance of many of the complications of pregnancy without taking postmortem findings into account would result only in a misinterpretation of their significance.

Among the complications of pregnancy, placental abnormalities were more frequent than all others. Premature separation of the placenta was named 17 times. Unquestionably, when placental detachment occurs, lack of oxygenation of placental blood may result in anoxia and death of the fetus. Postmortem examination of fetuses dying from primary anoxia usually shows petechial hemorrhages on the surfaces of the thymus, heart and lungs.[2] In none of the autopsied infants was this finding related to placental or cord abnormalities. It is very likely that premature separation of the placenta was a significant factor in producing some of the fetal deaths in this series, but lack of pathologic evidence prevents its establishment as the immediate cause of death in the 17 instances when it was a complication.

Pregnancies complicated by toxemia result in a higher incidence of fetal and newborn deaths than do uncomplicated ones.[2] Although maternal toxemia was listed 12 times in this series, one cannot conclude that it was the immediate cause of death of all of those fetuses. There is no known direct deleterious effect on the fetus from maternal toxemia other than the trauma that may result from maternal convulsions or hazards encountered from premature delivery.[2] Without pathologic evidence of mechanical injury or anoxia, the significance of toxemia in fetal death is questionable. Among those fetuses whose mothers had toxemia, only one was autopsied, and the pathologist reported no significant findings.

Erythroblastosis was named five times without any other recorded complicating cause. Only one of the five mothers had a significant quantitative Rh titer. Two fetuses were hydropic, and two had yellow-stained amniotic fluid. For those four fetal deaths, no other data were recorded that would help establish the diagnosis. In four of the five, the diagnosis of erythroblastosis as the primary cause of death could logically be questioned.

Among the 119 records of fetal death that were reviewed, 34 failed to reveal an obvious cause, or even what could be considered as having been a contributing factor. This high percentage of fetal deaths from unknown cause is in keeping with other reported studies. Dunham[3] has stated that even after evaluation of an accurate history and postmortem examination, it is frequently impossible for one to establish a cause of death. Contrarywise, others have been able to determine a significant cause in over three-fourths of stillborns studied.[4, 14] It should be emphasized that for the majority of stillbirths, neither the maternal history and labor record, nor the postmortem examination alone gives an adequate explanation for death. In most instances, both are necessary if one is to establish a definite course.

Newborn Mortality. For every 1,000 babies born alive during the five-year period, approximately 19 (18.7) died before leaving the hospital (Table 2). Mortality rates reported by the National Office of Vital Statistics[5] reveal that, for the white race in the United States during 1951, there were 18.9 newborn deaths (under 28 days of age) for every 1,000 live births. Although the national rate is about the same as the one at Iowa Methodist Hospital, the comparison is unfavorable to the Iowa institution for two reasons: (1) the national rate is an average of death rates not only in high quality hospitals but also in areas where professional care is inadequate, and (2) the neonatal death records at the Hospital are incomplete because death, though it occurred within 28 days of the child's birth, may have occurred after he or she had been taken home.

A study of newborn mortality at the Chicago Lying-In Hospital covering the years 1941 through 1946, excluding infants weighing under 1,000 Gm., shows 12.5 deaths for every 1,000 live births. A more recent five-year study there has shown a further reduction in newborn fatalities.[6] If all live-born infants weighing under 1,000 Gm. were excluded from the present study, the Iowa Methodist Hospital mortality rate for newborn infants would be 13.6. One many conclude, then, that although the mortality rate there is respectable, it could be improved. The fact that it is a well-equipped, modern hospital staffed by a well-trained professional group certainly makes one feel that it *should* be better.

In order to determine accurately the relative importance of the factors influencing death among the infants reported upon in this study, it was necessary that I analyze the term and the premature infant deaths separately. Of the 193 newborn deaths, 139 were prematures. Obviously, immaturity was not responsible in all instances for the deaths of premature infants. Physiological immaturity probably was responsible for death in only a small portion of the prematures who failed to survive. There is evidence, nevertheless, that prematurity alone exerts a marked influence on total newborn mortality. Although prematures accounted for only seven per cent of all live births, premature infant deaths constituted approximately three-fourth of all newborn deaths. The United States Children's Bureau[7] reported that 47 per cent of gross newborn mortality was due to prematurity. Other reports[4] have shown that prematurity has been responsible for from 50 to 75 per cent of newborn deaths. Although the percentage of premature deaths in this series is not excessively high when compared with experience elsewhere, it is apparent that the premature group contributes a major share to the over-all newborn mortality rate. The relative extent to which prematurity influences newborn mortality can be determined more clearly through a detailed analysis of premature mortality statistics.

Premature Births and Deaths. The effect of premature deaths on gross neonatal mortality is governed primarily by the rate of premature birth. For this study, all live-born infants weighing 2,500 Gm. or less, regardless of gestational age, were considered premature. Among the 10,319 live births during the five-year period, there were 728 premature infants (Table 5). The yearly rate,

TABLE 5

PREMATURE RATE (1949-1953)

Year	*Livebirths*	*Termbirths*	*Premature Births*	*Prematures Per 100 Livebirths*
1949	1848	1708	140	7.58
1950	1880	1734	146	7.76
1951	1967	1812	155	7.88
1952	2304	2177	127	5.51
1953	2320	2160	160	6.89
	10,319	9,591	728	7.05

which was consistently low, ranged from 5.5 per cent to 7.7 per cent. The average five-year incidence was 7.05 per cent. The incidence of premature birth at various centers throughout the country is between five and ten per cent. The variability among the rates reported from other institutions is due to such factors as the race and economic level of the maternity patient and the professional quality of the prenatal care that she has received.[8] At hospitals in areas where there is a large non-white population and where the socio-economic level of the average patient is low, the incidence of premature birth tends to be high.

The risk of death is proportionately greater among infants of low birth weight. For this reason, it is important that one determine the distribution of premature births among the specific weight groups (Table 6). In a large series of premature hospital births in New York City in 1945, about two-thirds were in the 2,000-2,500 Gm. group.[3] That report is consistent with the percentage weight distribution in the prematures

TABLE 6

PREMATURE LIVE BIRTHS BY WEIGHT (1949-1953)

	1949	1950	1951	1952	1953	Total	Per Cent
1000 grams and under	9	13	12	8	16	58	7.96
1001-1500	11	11	17	15	10	64	8.79
1501-2000	24	25	36	16	24	125	17.17
2001-2500	95	94	90	88	108	475	65.17
Unknown	1	3	0	0	2	6	
	140	146	155	127	160	728	

PREMATURE DEATHS BY WEIGHT (1949-1953)

	1949	1950	1951	1952	1953	Total	Per Cent
1000 grams and under	9	9	12	8	14	52	37.4
1001-1500	7	4	9	10	10	40	28.77
1501-2000	3	2	5	3	8	21	15.10
2001-2500	4	7	6	1	2	20	14.38
Unknown	1	3	0	0	2	6	
	24	25	32	22	36	139	

covered by this study. Eight per cent of the premature births at Iowa Methodist Hospital weighed less than 1,000 Gm. At the Chicago Lying-In Hospital, the incidence of birth in this latter group has remained at a constant level of seven per cent throughout the years.[6]

Although one-third of the premature infants born were under 2,000 Gm., this group accounted for 80 per cent of the premature deaths (Table 6). This demonstrates the fact that the survival rate among prematures decreases with diminishing birth weight. Examination of the mortality rate among the specific weight groups shows that the chance for survival of a 2,000 Gm. infant is eight times greater than for an infant weighing 1,000 Gm. or less, and that an infant weighing 2,500 Gm. has nine times more chance to survive (Table 7). Comparison of survival rates at Iowa Methodist and at a leading premature center reveals similar results.[9] The Children's Bureau[12] reported no chance of survival for infants of the 1,000 Gm. group, and many authors exclude them from premature mortality reports on the grounds that they are "previable." But it is unreasonable for us to hold no hope for these infants when ten per cent of them survive.

TABLE 7

COMPARISON WITH EXPECTED SURVIVAL RATES

Wt. Groups	Sarah Morris	St. John's	Children's Bureau	IMH
0-1000	13.0	5.3	0	10.3
1001-1500	50.1	38.6	50	37.5
1501-2000	78.4	73.5	82	83.2
2001-2500	89.0	95.1	93	95.8

Iowa Methodist Hospital's over-all premature mortality rate for the five-year period was 19.09 per cent (Table 8), a somewhat better record than that of St. John's Hospital, Tulsa, a private institution of about equal size.[12] Yet it is higher than the rates reported from many of the larger premature centers. When one examines the premature death rates at such hospitals as Boston Lying-In, Chicago Lying-In, Cook County and Long Island College (Table 9), it is apparent that the death rate at this hospital could be improved.

TABLE 8

PREMATURE FATALITY RATE ACCORDING TO WEIGHT (1949-1953)

Birth Weight	Premature Births	Premature Deaths	Deaths Per 100 Premature Births
1000 grams and under	58	52	89.65
1001-1500	65	40	62.50
1501-2000	125	21	16.80
2001-2500	475	20	4.21
Unknown	6	6	100.00
	728	139	19.09

PREMATURE FATALITY RATE PER YEAR (1949-1953)

Year	Premature Births	Premature Deaths	Deaths Per 100 Live Premature Births
1949	140	24	17.14
1950	146	25	17.12
1951	155	32	20.64
1952	127	22	17.36
1953	160	36	22.50
	728	139	19.09

TABLE 9

COMPARISON OF PREMATURE MORTALITY RATE

Hospital	Mortality Rate
New York City Hospital (1945)	17.1
Long Island College Hospital, Brooklyn (1945)	16.1
Sarah Morris Hospital (1945)	25.8
Charity Hospital, New Orleans (1945)	15.0
Cook County Hospital	17.9
Kings County Hospital, Brooklyn (1949)	12.9
Beth-el Hospital, Brooklyn (1947)	13.5
St. John's Hospital, Tulsa, Okla. (1950)	22.4
Iowa Methodist Hospital (1953)	19.1

Analysis of the ages of premature infants at the time of death reveals the importance of the first day and the first week of life. Over two-thirds of all premature deaths occurred during the first day, and only six per cent died after one week (Table 10). When age at death is plotted against birth weight, it is seen that 80 per cent of deaths among infants who weighed 1,000 Gm. or less at birth and about 60 per cent of deaths among prematures in the higher weight groups occurred during the first day (Table 11). These observations indicate that a large portion of premature mortality results, not from inadequate postnatal care, but from complications encountered during delivery.

TABLE 10

POST-NATAL AGE OF PREMATURE DEATHS

Age at Death	*1949*	*1950*	*1951*	*1952*	*1953*	*Total*	*Per Cent*
24 hours and under	14	15	21	21	25	96	69.06
1 day to 1 week	8	9	8	1	7	33	23.74
Over 1 week	1	1	3	0	4	9	6.47
Unknown	1	0	0	0	0	1	
						139	

TABLE 11

POST-NATAL AGE AT DEATH ACCORDING TO WEIGHT

Age at Death	*1000 grams and under*	*1001-1500*	*1501-2000*	*2001-2500*	*Unknown*
24 hours and under	41 (80%)	25 (60%)	14 (60%)	13 (60%)	3
1 day to 1 week	7	12	5	7	2
Over 1 week	4	2	2	0	1
Unknown	0	1	0	0	0

Causes of Death. When no postmortem examination had been performed, the clinical history or physical examination record frequently was sufficient to establish an exact cause of death. A large group of premature infants, however, were not autopsied, and had presented no outstanding diagnostic findings. The majority of them died within minutes, or at most a few hours after birth, and usually presented a picture characterized by intermittent episodes of cyanosis. Frequently, respirations were never adequately established. Although it is possible that some of these may have died from cerebral trauma, hyaline membrane or an unrecognized congenital anomaly, the cause of death was ascribed to "respiratory difficulty, no obvious cause."

It is customary for most authors to list prematurity as one of the causes of death among newborn infants. Prematurity usually is stated as the cause of death when no pathologic findings are discovered at autopsy and when the infant weighs less than 1,000 Gm.[13] Diagnosed on this basis, prematurity as a cause of death is diagnosis by exclusion only. Many complicating factors of labor or delivery, frequently unrecognized, may operate to produce early death in the infant. In general, these complications are the same as those found associated with fetal deaths, and may include maternal disease, cord and placental anomalies, and cerebral trauma. All of these extrapulmonary factors can lead to anoxia, atelectasis and subsequent death. As has already been said under the heading "Fetal Deaths," anoxia may be the immediate cause of death, but the primary factor is often obscure. Because postmortem examination sometimes fails to reveal definite pathologic changes associated with anoxia, it is difficult to determine which infants die from anoxia secondary to some obstetrical complication of pregnancy and labor, and which died from immaturity. For this reason, those infant deaths, usually in the low-weight groups, in which no definite clinical findings could be made or in which autopsy showed no more than atelectasis from no apparent cause were included in a single group.

Eighty-one of the 139 premature deaths had to be so classified (Table 12). One-half of these infants weighed less than 1,000 Gm., and almost all of them died during the first 24 hours. All had respiratory difficulty beginning at birth, with repeted episodes of cyanosis. None had any obvious or gross congenital defects which could be counted as a significant cause of death. There were 23 autopsies performed in this group. Only one had evidence of aspirated amniotic fluid, and only one was reported to have immature development of respiratory epithelium. Unfortunately, the brain was examined in only a few of the autopsied infants. According to reports from other institutions, cerebral trauma is a significant cause of death among prematures, and Potter[13] has called this one of the most promising avenues for effecting further reduction in premature mortality rates. Cerebral trauma was not found as a significant cause of death in any of the autopsied infants in this series. By comparison with findings at other hospitals, one could assume that trauma was a cause of death for a significant number of the infants covered by our study. The absence of evidence of trauma in the records at Iowa Methodist Hospital was probably due to the facts that only

TABLE 12

CAUSES OF PREMATURE DEATH (1949-1953)

	Number	*Per Cent*
Respiratory Difficulties		
Atelectasis secondary to Cerebral Trauma, Cerebral Hemorrhage, Anoxia, Pulmonary Immaturity, No Obvious Cause	81	57.5
Hyaline Membrane	27	19.4
Other Causes	9	6.0
Malformations	14	10.1
Infections	5	3.6
Erythroblastosis	3	2.2
	139	

a small number of postmortem examinations were conducted and that the brain was not examined in many of the infants who were autopsied.

One cannot say which of the infants in this group died from immaturity, which from trauma, or which from anoxia secondary to obstetric complications. All had a similar clinical picture, and all of the autopsied group had pulmonary atelectasis. To classify all of these etiologies of death under one heading is unsatisfactory, since it is probable that each helped to bring about a significant share of the 81 deaths. A more detailed analysis, however, cannot be obtained from the clinical or pathologic data available.

The causes of death included in this group are responsible mainly for deaths of premature infants. It is well recognized that birth trauma is a much greater hazard for the premature than for the term infant. Also, those complications which initiate premature labor may likewise be effective in producing intrauterine anoxia in the infant.

Until recently, birth trauma and intrauterine anoxia have been the leading causes of death among the newborn.[13] As shown by Potter, Arey and others[4, 13] there has been a changing trend in the incidences of the various causes of such death during the past ten years. At the Chicago Lying-In Hospital, reduction in newborn mortality has been accomplished chiefly by a marked reduction in the incidence of trauma and anoxia. The latest report by Potter[13] reveals that hyaline membrane, congenital malformation and erythroblastosis are the only causes of newborn death which have shown no decrease.

Although intrauterine anoxia and immaturity were responsible for the greatest portion of deaths in this series, more deaths occurred as a result of hyaline membrane than of any other single disease entity. Hyaline membrane disease can be diagnosed definitely only by microscopic examination of the lungs.[4] Frequently, however, a presumptive diagnosis can be made before death because of the characteristic course of the disease. Infants with hyaline membrane commonly have respiratory difficulty neither at birth nor immediately after birth, but later develop costal retraction with increasing respiratory embarrassment and cyanosis.

In this study, 27 premature infants (19 per cent) died as a result of hyaline membrane (Table 12). Only 22 of those cases were confirmed by microscopic examination of the lungs. The five who were not autopsied experienced a clinical course characteristic of the disease, and were diagnosed by the examining physician at the time of death.

Although the pathogenesis of the disease is not yet clearly understood, any theory concerning the formation of the hyaline membrane must account for two commonly observed features: (1) hyaline membrane occurs more frequently among infants delivered by cesarean section than among infants delivered by the normal route, and (2) it occurs more frequently in prematures than in term infants.

Of the 139 premature infant deaths, 19 were delivered by cesarean section. Among the sectioned group, six (32 per cent) died as a result of hyaline membrane. In comparison, hyaline membrane was responsible for only 17 per cent of deaths among the 120 premature infants who died after delivery by the vaginal route. No adequate explanation has been offered for the higher incidence among section babies, but such factors as anesthetic, operative manipulation, lack of uterine contraction and failure of the infant to pass through the birth canal must all be considered.[4]

The study also demonstrates that more prematures than term infants are affected. Only 16 per cent of term-infant deaths could be attributed to this cause, and all of these were confirmed by autopsy. It is interesting that among the term deaths, four were delivered by section, and all four died as a result of hyaline membrane disease.

Hyaline membrane tied for second among the causes of death in term infants (Table 13), and was the third leading cause of death among all newborns (Table 14). Our figures contrast with the findings at the Chicago Lying-In Hospital, where hyaline membrane is the leading cause of death.[13] Some of the premature infants who were

TABLE 13

CAUSES OF DEATH AMONG TERM INFANTS (1949-1953)

	1949	*1950*	*1951*	*1952*	*1953*	*Total*	*Per Cent*
Congenital Malformations	4	7	8	3	1	23	42.59
Erythroblastosis Fetalis	1	1	1	2	4	9	16.66
Hyaline Membrane Disease	1	3	0	4	1	9	16.66
Pulmonary Difficulty other than Hyaline Membrane	3	1	0	1	1	6	11.11
Infection	2	0	0	1	1	4	7.40
Unknown	0	0	1	2	0	3	5.55
	11	12	10	13	8	54	

TABLE 14

CAUSES OF NEWBORN MORTALITY AT THE CHICAGO LYING-IN HOSPITAL AND IOWA METHODIST HOSPITAL

	Chicago Lying-In (1951-1954)			*I.M.H. (1949-1953)*	
	NUMBER		PER CENT	NUMBER	PER CENT
1. Anoxia	10	60	37.0	85	44.0
Trauma	9				
Immaturity	41				
2. Malformations	33		20.3	37	19.1
3. Hyaline Membrane	46		28.4	36	18.6
4. Erythroblastosis	5		3.0	12	6.2
5. Other Causes	11		6.7	14	5.7
6. Infections	7		4.3	9	4.6
	162			193	

not autopsied and were said to have died from "respiratory difficulty, no obvious cause" may have died from hyaline membrane. That possibility may account for the lowered incidence of hyaline membrane deaths at Iowa Methodist Hospital, and it further emphasizes the need for more postmortem examinations there.

Erythroblastosis was responsible for six per cent of all deaths of newborns. Only three premature infants died from it. One of these received a direct transfusion, died at three days of age, and at autopsy showed a grossly yellow-stained brain. The other two prematures were hydropic and lived one and three hours, respectively. Both mothers had high quantitative Rh titers. Neither infant was transfused.

Erythroblastosis caused the deaths of nine term infants. All died during or following an exchange transfusion. Two infants had ruptured spleens, and one showed kernicterus at autopsy. Six were not autopsied, and five of those six died while an exchange transfusion was being performed.

Congenital anomalies are another major cause of death among newborns. Most malformations are due to some abnormality of the intrauterine environment occurring during early gestation. Irradiation and maternal infections with German measles virus have well known effects on early fetal development. Animal experimentation suggests that human fetal malformation may also result from deficiencies of a number of nutritional elements and also from complications that produce anoxia.[15] Despite the increase in the number of women receiving good prenatal care and adequate diet during pregnancy, malformations persist as one of the leading causes of death in the newborn. Thus, further reduction of neonatal mortality from this cause may not be expected until more is known about the causes of abnormal fetal development.

Only ten per cent of premature deaths were due to congenital malformations, but almost one-half of the deaths among term infants had that cause, and it took second place among the causes of all newborn deaths. Abnormalities in development of the fetus occur between the second and third months of gestation. The majority of fetuses which are aborted during the first trimester show malformations that are incompatible with life.[2] However, if a malformed fetus does not die during the first trimester, it usually will continue to live until term.[2] This fact probably accounts for the variation in incidence of malformations between the term and premature infant groups.

Although the remainder of the premature infant deaths contributed a relatively small percentage to the over-all premature mortality, they demand close attention none the less. These premature deaths were due either to aspiration or to infection. The number of infant deaths due to these causes need not be compared with results at other institutions, for they are needless deaths. There probably will always be a few prematures who die following aspiration, or from infection. But in view of present day knowledge of premature care, these deaths are preventable. Because knowledge of the etiologies of hyaline membrane, congenital anomalies and premature birth is incomplete, the prevention and treatment of these conditions is relatively inadequate, and one must expect a certain irreducible minimum of deaths from them. In an adequately staffed, well-planned nursery, however, the irreducible number of deaths from aspiration and infection should be zero! These are the deaths, therefore, which reflect directly upon the quality of premature nursery care.

Five premature infants died following aspiration of feedings. It is impossible to determine to what extent improper feeding or careless feeding technic was a factor in the deaths of these infants. A high index of suspicion is aroused, however, when one realizes that nurses, unsupervised and inadequately trained in premature care, are frequently entrusted with this responsibility.

In the past, infection played a prominent role in causing premature death. More enlightened premature care with respect to isolation technic and antibiotic therapy has markedly reduced the incidence of premature death due to infection. Recently, other reports[13, 16] have emphasized the decreasing role of infection as a cause of death in the premature nursery, and these reports have demonstrated that only a small percentage of prematures now die from this cause.

Infection was found in only five of the 139 premature deaths in this series, and all were diagnosed by blood culture or by postmortem examination. It is possible that the incidence would have been higher if more autopsy examinations had been done. Two of the five lived less than two days, and autopsy showed bronchopneumonia. Another infant lived five days, had folliculitis and was diagnosed clinically as having sepsis, although the blood culture was negative. Autopsy of this infant revealed a chronic interstitial nephritis. Probably these three infants contracted their infection prior to birth.

Two prematures lived 33 and 56 days, respectively. The infant who died at 33 days of age showed an interstitial pneumonia at autopsy. The 56-day-old infant was doing well, but was suddenly found dead when the "nurse walked into the room." Postmortem examination showed multiple subcutaneous abscesses. Unquestionably these last two were needless deaths.

Four term infants had proved infections at autopsy. One had an E. Coli meningitis and septicemia, proved by blood and spinal fluid culture; and one died at ten hours of age with bronchopneumonia. The other two deserve special mention. Both infants were considered normal,

healthy newborns. At three and five days, respectively, they were suddenly found dead in their bassinets in the nursery. Recent investigations[17] of such deaths have dispelled the commonly accepted theory that smothering or asphyxiation can have caused them. At postmortem, both of these infants were found to have had bilateral bronchopneumonia.

Among premature and term infants combined, infection accounted for 4.6 per cent of the total newborn mortality. This was the least common of all the causes of newborn death in this study.

DISCUSSION

The preceding analysis of mortality rates and causes of death has taken up the stillborn, term and premature infant separately, because of physiological differences between the term and the premature infant and the consequent variations in incidences of causes of death. Also, a separate analysis of the two groups was essential to a clarification of the areas in which care has been either deficient or proficient.

It must be recognized, however, that the broader concept of fetal salvage or fetal loss precludes separate consideration of these groups in any study of newborn and fetal death. Although the incidences of death from the various causes and among the three groups differ, the same mechanisms are capable of producing death in all three. That point has been made earlier in this study, and it is emphasized by Potter, Arey and others.[4, 13] In this study, a large group of premature infants died during the first day, and many of them lived only a few minutes. Frequently, only a breath prevented so-called live-born premature infants from being classified as fetal deaths. Any attempt to understand the mechanisms and causes of newborn death necessarily must include an interest in, and a study of, fetal death. It is common sense that a physician's desire to deliver a healthy mother of a live baby is coupled with his desire to prevent fetal and newborn death and thereby also to reduce maternal morbidity.

The importance of developing an increased awareness of and a heightened interest in stillbirth and newborn-death problems rests upon the following facts: (1) Among the ten leading causes of death in this country during 1952, diseases of early infancy ranked fifth. (2) Of this group of deaths, two-thirds occurred during the newborn period. (3) As this study has shown, the great majority of newborn deaths occur before the end of the first day or week of life. The causes of death enumerated in this study obviously represent hazards to a large share of human life. Considered in this broader aspect, fetal and newborn death constitutes a major problem of public health. As such, this not only is the concern of the obstetrician and the pediatrician, but should be a subject of interest to every physician.

Although the care of a live-born infant is the responsibility of the pediatric practitioner, the diseases and abnormalities from which the majority of newborns die are also the problem of the obstetrician. Congenital anomalies, hyaline membrane disease, trauma, anoxia and immaturity all result from an abnormal pregnancy or a complicated delivery. The majority of these deaths at the present time are unavoidable. The problem remains, however, of finding out which infant deaths are preventable—i.e., which deaths are due to faulty medical management or to inadequate nursing care. It seems essential that an aggressive program be instituted whereby close cooperation between the obstetric and pediatric staffs may result in preventing unnecessary newborn deaths.

Iowa Methodist Hospital's committee to review newborn deaths needs to become more active. Representatives of the nursing office and hospital administration should be included among its members, since it is the responsibility of those offices to know the needs and to supply the necessary facilities and nursing personnel.

Each death should be reviewed and studied so that the factors that were responsible can be identified. Only when preventable errors and deficiencies have been uncovered will a reduction in the number of newborn deaths be possible. A few of the preventable or correctable factors are as follows:

1. Inaccurate and incomplete labor and birth records.
2. Induction of labor when there is no sound medical indication for it.
3. Indiscriminate and excessive use of inhalation and intravenous anesthetics and analgesics, particularly in premature births.
4. Unskilled, overzealous or haphazard efforts at resuscitation.
5. Inadequate and untrained nursing personnel in the premature nursery.

Foremost is the matter of medical records. The importance of accurately described and recorded maternal and labor histories cannot be emphasized too strongly. Many of the labor and birth records which were reviewed in this study were altogether illegible; many contained incomplete information. On almost none of the stillbirth records was it possible to determine whether the death had occurred before or during labor and delivery, though such information would have been useful to us in evaluating the obstetrical methods and technics. Some records failed to reveal the type of anesthetic that was employed, and a few charts had no labor or birth record at all. Undoubtedly, this is one area in which a deficiency could be corrected.

Any progress in the study and prevention of fetal and newborn loss can be achieved only when both accurate histories and carefully written post-

mortem examination reports are available for study. During the period covered by the study, only about 25 per cent of fetal deaths and about 50 per cent of newborn deaths were autopsied. It is the impression of the resident staff that many of the attending physicians are apathetic as regards obtaining permissions for autopsy. Too frequently, this responsibility has been delegated to the intern or the resident. Certainly the attending physician is in a better position to convince the parent of the necessity for a postmortem examination than is an "on call" member of the house staff.

A glaring deficiency exists in the premature nursery. A significant portion of prematurely born infants die because of immaturity. However, as the preceding analysis has shown, prematurity in itself is not a prelude to death. It is the problem and responsibility of the pediatrician to prevent these infants from succumbing to the hazards to which they are highly susceptible. The commonest pitfalls encountered in the premature nursery are complications resulting from feeding and from infection. Proper feeding technics and prevention of infection are prime concerns in the successful growth of a small, premature infant. Strict adherence to sound and progressive methods of premature care is impossible, however, without adequate facilities and trained personnel. Although the physician may guide the management of a premature infant, the life or death of the infant is mainly in the hands of the nurse who has been charged with his care.

It is illogical that a woman should be delivered by a trained obstetrician in a well-equipped, modern hospital and for the infant to be placed in a nicely equipped premature nursery under the care of a trained pediatrician, if an insufficiently trained nurse is then to be entrusted with the nursing care of the baby. It is common knowledge that student nurses are required to assume responsibility in the premature nursery, often when they have had nothing more than a few hours of orientation. This does not represent the best possible premature care; in fact, this more closely resembles negligence. The results of this study suggest that a significant share of premature deaths might have been prevented if well-trained nurses had been employed.

One should not be hypercritical of the fetal and newborn death rates at Iowa Methodist Hospital. At the same time, however, an attitude of complacency is unjustifiable. One may conclude that the fetal and newborn death rates there are satisfactory. When compared with existing standards at other institutions, however, it is apparent that there is room for improvement.

This study was not designed necessarily to uncover specific deficiencies in pediatric and obstetric care. Rather, it is hoped that the results of this study may serve as a base line from which future investigations into ways of decreasing the incidence of newborn mortality at Iowa Methodist Hospital may be undertaken.

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SIOUX VALLEY MEDICAL ASSOCIATION

The sixtieth annual meeting of the Sioux Valley Medical Association will be held at the Hotel Martin, in Sioux City on February 21-23, 1956. The requirements of the American Association of General Practice are being followed in expectation that the program will be approved for Category I (previously "formal") credit hours.

A new feature is being planned for the first day of the meeting, Tuesday. Clinical demonstrations will be given by the staffs of the four Sioux City hospitals. The customary smoker will be held that evening at the hotel, with an address by a member of the faculty of the University of South Dakota Medical School.

The speaker for the annual banquet, Wednesday, is to be Dr. Charles Mayo, of Rochester, Minnesota, and Dr. Mayo has agreed to address another of the Association's sessions, talking on a medical topic. Copies of the complete program will be available shortly.

Sweat Disturbances

Some Systemic and Dermatologic Aspects

SOLOMON GREENHILL, M.D.

DES MOINES

In tropical and semi-tropical areas during World War II, disturbances of the sweat apparatus created many dermatologic problems among military personnel. As a result, extensive research was undertaken, and a voluminous literature has accumulated. The new knowledge has helped explain many illnesses, a new syndrome has been defined, and the sweat apparatus has been found to have more importance in our dermatologic and systemic economy than had been thought.

ANATOMY AND PHYSIOLOGY

There are two types of sweat glands. The small eccrine glands are merocrine, or truly secretory. Embryologically, they are derived from the surface epithelium, and they occur over the entire body. The apocrine glands, of larger size, somewhat resemble the holocrines in that there is a partial destruction of the cell as the secretion is formed. In this regard, however, the apocrines are midway between the eccrines and the holocrines. Embryologically, the apocrine glands are derived from the epithelium of the hair follicle, and they are to be found in the axillary, the peri-mamillary, the umbilical, the pubic, the genital, the perineal and the peri-anal areas. They include the glands of the ear canal, and the glands of Moll which are modified apocrine glands.

Phylogenetically, the eccrine glands are recent, whereas the apocrines are atavistic remnants. The function of the eccrines is of utmost importance in thermo-regulation. The function of the apocrines, however, is not clear. The theory that they have an aphrodisiac function is unacceptable to most investigators, despite the fact that psychiatrists tell us of individuals who cannot attain adequate sexual response without the olfactory stimulation which they provide.

Sweat is not a simple filtrate of blood plasma.[1] Rather, it is the result of an active, selective secretion. The sodium and chloride levels are always lower in sweat than in plasma, but the level of potassium is higher. The sweat apparatus is a barrier to glucose, even when the glucose blood level is elevated.

As a mechanism for the flow of sweat from the gland to the surface, Sulzberger[2] has recently developed the hypothesis of an electro-physiologic potential based on the electro-negativity of the distal end of the duct.

It is of passing interest that children do not have fully functional sweat apparatus until they are several years old.

The innervation of the sweat glands[3, 4] includes a neurone from the cortex to the hypothalamus, then one to the medulla, and another to the lateral horns of the spinal cord. From there, a neurone connects to the automatic ganglia by the white ramus communicantes, where it synapses and emerges by the grey ramus to continue on to the sweat organs. Although the innervation is apparently sympathetic, pharmacologically the eccrine glands are cholinergic—i.e., they react to parasympathetic stimulation and inhibition. Contrastingly, the apocrine glands are adrenergic—i.e., they respond to sympathetic stimulation and inhibition.

An unusual aberration of the sweating process is chromhidrosis, the secretion of colored sweat. Occasionally, exogenous causation by bacteria, by fungi, and by ingestion, injection or application of materials containing heavy metals has been demonstrated. So it has always been considered a purely pathologic phenomenon. Recently, however, Shelley and Hurley[5] have elicited some facts that modify this conception. From the comparative physiology of mammals, they knew that the hippopotamus and the kangaroo sweat red, the antelope blue and the gazelle black. Comparison of the cerumen of Occidentals and Orientals—the ceruminous glands being modified apocrine glands—reveals that the cerumen of Occidentals is yellow, and that of Orientals white. Then, examining many normal individuals, they observed many mild deviations in color which were insufficient to arouse complaint. They studied a patient in whom black chromhidrosis developed after emotional or thermal stimulation. Epinephrine also produced it, but it did not follow the injection of cholinergic compounds. After the expulsion of the black sweat, a 24-hour refractory period ensued before the colored sweat could be made to reappear. The color was not always black, but could be blue, grey or white. They demonstrated that the apocrine glands that produced this material were pigmented. Under the microscope, the tubules were the color of the sweat that they secreted, that phenomenon being due to the presence of pigment granules which belong

Dr. Greenhill read this paper at the November 7, 1955, meeting of The Study Club, in Des Moines.

to the lipopigments, or specifically lipofuscins. The color of the sweat depended upon the state of oxidation of these pigment granules, the lowest state of oxidation producing yellow, and the highest producing black. This comparative study showing the different colors of sweat produced by the apocrine glands in various animals, the various nuances of color seen in Occidentals, and the white cerumen of the Oriental and the yellow cerumen of the Occidental provoked the idea that chromhidrosis in Occidentals is physiologic—that only the rare extension of the normal which is cosmetically undesirable is pathologic.

SYSTEMIC ASPECTS OF SWEAT DISTURBANCES

It is known that a reduction or an absence of sweating in an area (hypohidrosis or anhidrosis) is an indication of an alteration of the peripheral nerve supply to that area.[6] Determining this point is of practical importance, especially to neurologists. Many sweating tests have been devised,[7] including the starch-iodine test of Minor, Roth's cobalt chloride test, Guttmann's quinizarin test, Silverman's ferric chloride test and Richter's test depending upon the variation in skin resistance to electric currents. Since the area of anhidrosis or hypohidrosis corresponds closely to the area of sensory loss which accompanies nerve injury, whether peripheral or in the spinal cord, and since the results of these tests do not depend upon the statements of the patients, one should both question the patient regarding the limits of the area in which feeling has been impaired, and administer tests as a means of confirming the patient's statements. Thus, the tests are used in peripheral nerve injuries, where they help determine the extent of the injury, and they aid in determining the level of cord injury. They are used in herniated nucleus pulposus, in transverse myelitis, in syringomyelia and in hysteria. Malis[8] and others found them useful in a case of multiple sclerosis, where hypohidrosis was the first manifestation of the disease. They are used in postoperative laminectomy, and as an aid in checking the results of sympathectomy.

There is a category of disorder in which hyperhidrosis is the important manifestation: gustatory sweating[10] or the auriculo-temporal syndrome.[9] Here, a circumscribed facial hyperhidrosis follows gustatory stimulation during every meal. Most often or most pronouncedly, it follows the ingestion of spicy foods and beverages, and it can occur even upon olfactory stimulation by such foods, before they are eaten. It sometimes is a consequence of operations upon the parotid, and there are other causes.

The problem of acclimatization to heat comes next to our attention. In this connection, Jerome W. Conn,[11] of Michigan, studied the electrolytes in sweat in a series of experiments extending from 1944 to 1950. The unsalutary effects of heat have long been a problem for people who found it necessary to live in the tropics. Blagden wrote about it 180 years ago. Now, however, the problem of acclimatization to heat is important even in our own temperate zone, for in many industries men here are exposed to high environmental temperatures. A survey in those industries established (1) that new workers are more susceptible to the effects of heat than are the old, (2) that tolerance to heat in seasoned workers is lowered by layoffs, vacations and alcoholic sprees, (3) that some men remain susceptible always but (4) that most, more fortunately, acquire an increased capacity to work in heat—i.e., they become acclimatized.

The process of adaptation takes from ten days to two weeks. On the first day, a man may collapse, with high rectal temperature and evidence of peripheral vascular failure. His subsequently better performance is due largely to an improved peripheral circulation and "an enhanced ability to resist depletion of body salt."[11]

Regarding the sweat salt, Conn demonstrated the mechanism as follows. In the process of becoming acclimatized to heat, a man produces more sweat. This sweat carries NaCl to the surface, where it is lost. This loss of salt is an adverse phenomenon in the physiologic economy. By virtue of the adaptive mechanism present in man, however, the concentration of NaCl in the sweat gradually decreases as he becomes acclimated.

Conn showed that a man working in a temperate climate loses about 4 Gm. of NaCl per liter of sweat. If he sweats about 8 liters a day, which is average, he therefore loses about 32 Gm. of NaCl. With the salt intake constant under the stress of heat he reduces his salt loss to about 10 Gm. Under the added stress of curtailed salt, he can diminish his sweat salt to as little as 0.1 Gm. per liter. Conn postulated that the mechanism in man whereby this is brought about resides in the adrenals and is mediated by way of the pituitary adrenal axis.

He noted that during acclimatization, an individual always showed a negative nitrogen balance. There was often an increase in the 17-ketosteroids. He observed a prompt but evanescent reduction in the NaCl secreted in the urine preceding a delayed but permanent reduction of NaCl secretion in the sweat. This prompt urinary adjustment requires normally functioning adrenals. He reasoned that the negative nitrogen balance and the occasionally increased 17-ketosteroids were findings incidental to the vehicle by which NaCl was retained, a reflection of the increased activity of the adrenals, but that they had no other significance. Knowing that, of all the steroids manufactured by the adrenals, desoxycorticosterone alone does not influence nitrogen metabolism, he administered desoxycorticosterone acetate to unacclimatized individuals, and by that means he pro-

duced the same pattern of salt elimination in the urine and sweat that had been observable in the individuals who were in the process of becoming acclimatized, with the exception that there was no change in the normal nitrogen balance —i.e., no negative nitrogen balance appeared.

Finally, Conn administered ACTH. It reproduced the entire pattern seen in men who were becoming acclimatized: the negative nitrogen balance, the typical lowering (but not maintained reduction) in urinary salt secretion, and the delayed (but maintained reduction) in sweat salt output.

Therefore, the need to conserve salt is the stimulus to the pituitary. There is then an outpouring of adrenocorticotrophin which stimulates the adrenals. The adrenals liberate several kinds of hormones. There are those affecting protein metabolism, indicated by the increased 11-oxysteroids and the negative nitrogen balance; there are those affecting sex metabolism, revealed by the increase in 17-ketosteroids; and there are those affecting electrolyte metabolism, shown by desoxycorticosterone, but it is only the last of these, desoxycorticosterone, that is needed for this particular metabolic demand.

Applied in other regards—e.g., in Addison's disease, in Cushing's disease, in the masculinizing syndrome and in other pathologies—the sweat test can give useful information for diagnosis and sometimes for evaluation of therapy. Patients with Addison's disease show very high levels of sodium and of chloride in the sweat (120 mEq. compared with the normal 60 mEq.). From our previous discussion, it is apparent that this level of salt elimination indicates defective desoxycorticosterone production by the adrenals. And the administration of desoxycorticosterone acetate as replacement therapy does reduce the salt level in the sweat to normal, and excess administration produces abnormally low levels. The determination of the salt concentration in such a case, therefore, is not only a great diagnostic aid and an index of adrenal cortical function, but is also a material guide as to the correctness of therapeutic control of electrolyte metabolism.

In another type of case,[17, 18, 19, 20] however, a high electrolyte content of the sweat is not an index of adrenal function, but it may be a diagnostic criterion of the disease in question—namely, the so-called fibrocystic disease of the pancreas. During the past 15 years, knowledge concerning fibrocystic disease of the pancreas has increased, with the result that it is now considered a generalized disease in which the sweat glands are important participants. Many patients who have it have proved unable to tolerate the stress of elevated environmental temperatures. They have suffered massive salt depletion, peripheral vascular collapse, coma and even death. Only timely intravenous salt replacement saved some of them from the lethal termination of their problems. Investigation revealed that nearly all of these patients poured out immense quantities of NaCl in their sweat. Desoxycorticosterone acetate, so helpful in Addison's disease, does not alleviate this condition. It seems not to have any influence whatever in diminishing the loss of sodium and chloride in this disease. The study of the patients' families indicates a genetic factor, for many of their siblings show the electrolyte pattern in their sweat, regardless of whether they show any other evidence suggestive of the disease. This electrolyte pattern in sweat has not been observed in any normal individual unrelated to a patient with this disease, nor in anyone with any other disease. Despite the fact that the criteria for diagnosis have been based on tests of pancreatic function or on pulmonary or other findings, there are many cases without pancreatic involvement and without pulmonary or other involvement. There is just the increased outpouring of salt. For that reason, the sweat test now seems to be the most reliable criterion of fibrocystic disease of the pancreas.

In other words, there are incomplete forms of this disease, and a high NaCl content of the sweat may be the only finding. And it follows that the sweat test may be of value in differentiating fibrocystic disease from coeliac disease, for example. No one knows the cause of this malfunction of the sweat glands—i.e., the explanation for their inability to retain sodium chloride and the reason for the adrenals' loss of influence over them, even though the adrenals themselves are normal. It is hypothesized that there may be a dysfunction of the autonomic system.

DERMATOLOGIC ASPECTS OF SWEAT DISTURBANCES

We turn now to the more specifically dermatologic aspects of disturbances of the sweat apparatus, prickly heat and the sweat retention syndrome.[12, 15, 16] There are manifestations in many diseases for which there has been no clear explanation. But an increase in information has now led to reasonable hypotheses and to demonstrable features which interpret manifestations in many dissimilar diseases as based on sweat duct pathology.

Patients with congenital ectodermal dysplasia are born with deficient and defective sweat structures. They do not sweat, and it is clear why they do not tolerate exercise or exposure to high heat and humidity. Sweat retention, with a marked disruption of sweat structures, accounts for the symptoms in patients with severe atabrine dermatitis. During the war, some soldiers who fainted on parade or in marches[13] were found not to sweat adequately. Some cases of exfoliative dermatitis and lichenoid eruptions resulting from neoarsphenamine and bismuth injections were unable to sweat. Sometimes after typhoid fever,[14] patients lost their ability to sweat. All of these became intolerant of high environmental tem-

perature and humidity. Exacerbation of itching and increased discomfort in those afflicted with atopic eczema and ichthyosis often parallels increased environmental heat and humidity. It has been demonstrated that contact dermatitis is aggravated by sweat retention. Consider how significant this can be in industry!

All these conditions show a related pathologic histology and patho-physiology. Only the degree of severity varies. All or some of the facets may be present. There is hyperkeratosis of the distal portion of the duct.[16] The ductal pore may be closed by a keratin plug, or the duct may be occluded by the pressure of edema in the tissues around the duct. When the pore is closed and the sweat is continuing to form and is exerting a pressure measured to be 250 mm. Hg., there is dilation and swelling of the duct and "sweat retention." If this occurs at the stratum corneum, it can be clinically diagnosed as miliaria crystallina. If it is in the epidermis below the stratum corneum, it is miliaria rubra. And if it is in the corium, it is miliaria profunda. Just as increased pressure within a tube or viscus in any other part of the body may cause symptoms,[2, 12] so it is conceivable that the pressure within these ducts may account for the prickling and the itching observed in many dermatoses. The prickling and itching cause scratching, and the scratching aggravates the original condition. Since the sweat continues to come under pressure from the acini, with the pore closed, it escapes by extravasation or after actual rupture of the duct into the adjacent tissues—the process known as "internal sweating." When these findings are extreme, there is disorganization and disintegration, the ducts are obliterated, the glands may be sparse and atrophic, and there are glands without ducts.

Now that we are in possession of this knowledge, it is plain why there is impairment of thermo-regulation, why hyperthermia develops under the stress of heat and exercise, why there is headache, palpitation and dyspnea, why there is rapid exhaustion, why the pulse is up and the respiration is increased, why even tetanic signs and alkalosis have been demonstrated, and finally, why after repeated attacks of peripheral circulatory failure, there has been progressive deterioration of the cardiac function.

Consider, now, that the sweat contains electrolytes, bromides, iodides, metals, organic and inorganic materials, bacterial and fungal breakdown products—many of these being actual allergens or potential allergens.[2, 12] Consider further that sweat within the tissues, rather than on the surface, is a foreign body. Thus, it is not surprising that Marchionini and Ottenstein actually reported a patient with sweat urticaria, in whom an intradermal injection with his own sweat produced a positive reaction, but on whom a patch test with his own sweat was negative, whose sweat produced no reaction when it was injected into another individual, and in whom the injection of sweat from another individual was similarly negative. Consider now that there are more than 2,000,000 sweat glands in the human body, that with the rupture of ducts because of sweat pressure, since the glands secrete in bursts, there may be the equivalent of hundreds of thousands of autogenous intradermal injections of allergen-containing sweat—sweat that normally should have poured onto the surface of the body. Thus, it is apparent that herein may lie the explanation for hitherto inexplicable and bizarre clinical symptoms. It may account for such phenomena as an individual's eating a particular type of food in a hot and dry climate, though he was unable to eat it in Iowa when the air was hot and humid, and why a patient with psoriasis or keratosis pilaris or ichthyosis does well in one climate and poorly in another. It may help to explain the difficult problem posed by certain types of hand eczemas among housewives and industrial workers, and it may help explain diaper rash and intertrigo. It may even help explain the eruption of a patient whom I was asked to see the other day, who had been extensively burned on one half of his body, and who developed a papulo-vesicular eruption confined to precisely those areas of his body that had been burned.

CONCLUSION

I have presented a limited discussion of sweat disturbances of the body which have both systemic and dermatologic aspects. They involve a fascinating structure that has an importance of which we are becoming increasingly aware—the sweat apparatus.

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Plastic Surgery of the Head and Neck

of Interest to General Practitioners

D. M. LIERLE, M.D., and W. C. HUFFMAN, M.D.

IOWA CITY

The scope of plastic surgery of the head and neck is quite extensive. In the broad sense, it includes tumor surgery and the reconstructive work which often is necessary to the rehabilitation of the patient, including the provision of grafts, flaps and certain prosthetic appliances. The work of the plastic surgeon has increased during the last few years as a result of the many automobile and industrial accidents which require the reduction of facial fractures and the repair of soft-tissue lacerations. Occasionally as a result of these accidents, there is indication for extensive reconstructive surgery such as the total construction of a new nose, lips or cheeks (Figures 1, 2 and 3). The field of plastic surgery of the head and neck may also include the making of external ears; correction of membranous and bony atresias of the ear to improve hearing; reconstruction of the nasal septum; rhinoplastic procedures for humps, twisted noses, old fractures and saddle-back deformities; advancements and recessions of the mandible; removal of tattoos and scars; face lifts; repair of the facial nerve for paralysis; and many other procedures.

One of the most important features in any well organized plastic service is a complete staff. Surgery is only a part of the treatment. The personnel should include artists, orthodontists and prosthodontists, dentists, speech teachers, psychometrists, psychologists, psychiatrists, audiologists and social workers.

One can see that essential surgery is the chief component of plastic surgery as we know it today. Not too long ago, it was generally thought of as esthetic or cosmetic surgery. But there is an increasing awareness among physicians and patients alike that certain facial deformities are important from the psychological and economic



Figure 1

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Figure 2

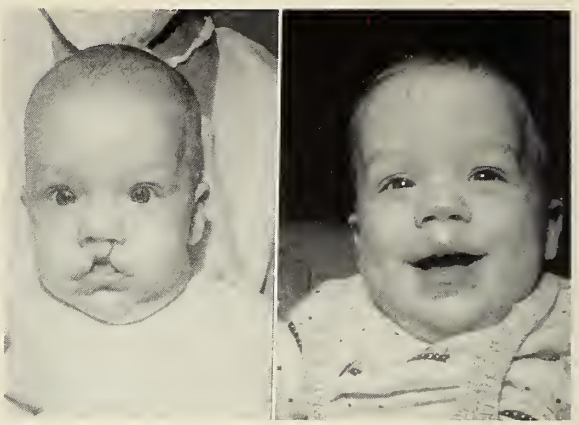


Figure 4

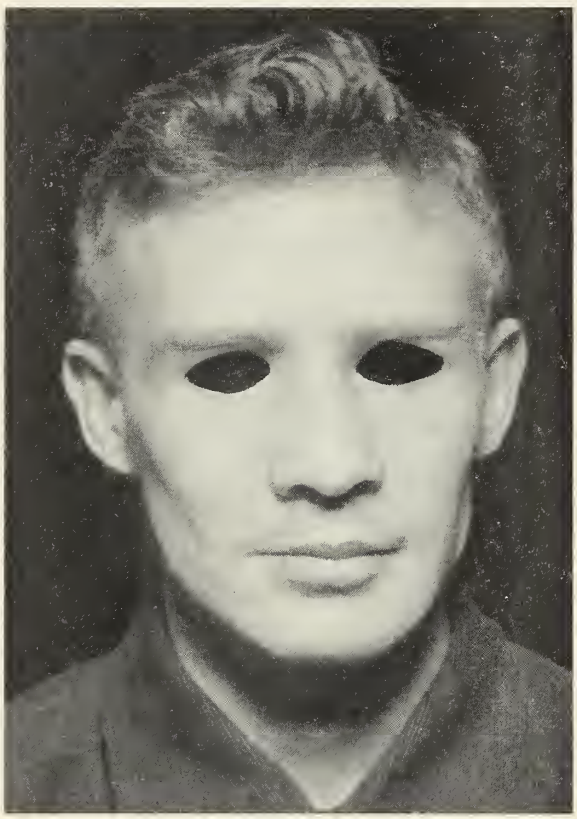


Figure 3



Figure 5

points of view. If not corrected, they often may evoke ridicule and scorn so severe as to cause a psychological injury from which the patient may never recover. Even from a so-called cosmetic point of view, correction has a practical value. It may reassure the patient and help him to obtain more remunerative or more congenial employment.

The plastic surgeon must, however, be constantly on the watch for the psychopathic patient who makes the rounds of plastic surgeons seeking correction of minor or imaginary defects. These individuals are never satisfied and, indeed, are more seriously deranged following each procedure.

We should like very briefly to discuss some of the general considerations in a few of the common plastic procedures.

CLEFT LIP AND/OR PALATE

Cleft lips and cleft palates occur more frequently in males than in females, and they are found in the ratio of one to 650 otherwise normal babies. Isolated clefts of the palate are found more frequently in females. Unilateral cleft lips occur more often on the left side. Ten per cent of all cleft patients have other deformities. A review of 700 cases revealed that 20 per cent had cleft lips only; 58 per cent had the combination of cleft lip and cleft palate; and 22 per cent had cleft palate only. There is a family history of some type of cleft in about 50 per cent of the cases. German measles, X-ray and radium therapy during the first trimester of pregnancy are said to be contributing factors. Feeding the infants with cleft lips and palate rarely becomes a problem. Before the lip operation, the milk is dropped into the sulcus of the cheek by means of a medicine



Figure 6



Figure 7

dropper or an ear or ulcer syringe, thus avoiding aspiration. Some infants with posterior clefts require a special nipple with an artificial palate.

Rehabilitation of cleft lip and cleft palate patients extends from birth to early adulthood. The rehabilitation team consists of the family physician or pediatrician; a plastic surgeon; a speech teacher; an orthodontist and prosthodontist; a dentist; a psychometrist; a psychiatrist or a clinical psychologist; and an audiologist.

The treatment of the cleft lip only requires the least amount of attention, as far as rehabilitation is concerned. Closures should be done when the infant is from two to eight weeks of age. Later minor surgical procedures may be necessary for the correction of slight deformities of the lip line or of the nose (Figures 4, 5, 6 and 7).

In the treatment of patients with clefts of both lip and palate, one is faced with the problem of the growth of the face and the development of the dental arches and dentition. Closure of the lip is usually done at about six weeks of age. Closure of the posterior cleft may be done in stages. In certain cases, the anterior portion may be closed with palatal flaps shortly after the lip has been closed. Closure of a wide cleft requiring lateral incisions may be delayed until the patient is four years of age, in some instances. A recent summary revealed that the scarring resulting from lateral incisions done too early causes a marked narrowing of the dental arch, with a resultant crowding and irregularity of the teeth in many patients.

Frequently, the palates are congenitally short, and closure is contraindicated. In those instances, a prosthetic appliance with an obturator is used, and excellent speech results. In certain cases, lengthening of the palate can be done by means of a pharyngeal mucosal flap.

Speech training should begin as soon as possible after the closure. Certain palatal exercises are indicated in such cases.

NASAL RECONSTRUCTION

One of the commonest procedures done at present is the reconstruction of the septum, particularly when there is a dislocation of the anterior end of the septal cartilage. The entire philosophy of the submucous operation has changed. Previously, much of the septal cartilage and vertical plate were removed, even though the obstruction was limited to a particular area. Now, we remove only the deformity, leaving as much of the supporting structures as possible. At present, an attempt is made to replace the anterior cartilage in its columnellar bed, rather than to remove it (Figure 8). Removal of the anterior cartilage often resulted in a dropped tip. Formerly, the submucous operation was deferred until the patient reached maturity, but the present procedure,

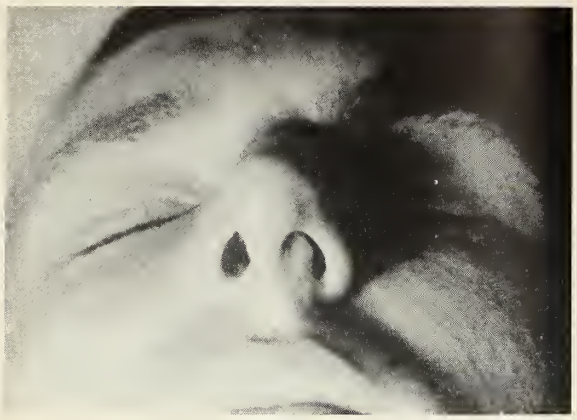


Figure 8

in which as much of the supporting structure as possible is left, permits the surgeon to correct the various deformities early in childhood. Early surgery is important because if uncorrected, an obstruction of one or both sides of the nose may lead to a lack of facial development. Certain infections of the ear in children may be benefited by the correction of a large basal spur or other deformity of the septum. We still feel, however, that the correction of very high deflections of the septum should be deferred if possible until maturity.

Since the nose is the most conspicuous facial feature, it is impossible to overestimate the psychic trauma that may result from even a slight abnormality in its appearance. Of even greater importance is the fact that any interference with the respiratory function of the nose leads to great annoyance and discomfort, as well as obstructing proper drainage. From clinical experience, it has been learned that pathologic nasal anatomy which causes the nose to be unsightly also causes physiologic dysfunction. In such cases, plastic repair has the double effect of improving appearance and improving function. Nasal plastic procedures for the correction of difficulties such as hump nose, old fractures, saddle-back deformity, twisted nose and bulbous tip can be done with almost uniformly pleasing results. Conversely, however, satisfaction is often unattainable when surgery has been required for the total reconstruction of an auricle, for the repair of a large facial defect, etc. (Figures 9, 10, 11 and 12).

A rhinoplasty means, basically, the "uncover-



Figure 9



Figure 11



Figure 10



Figure 12

ing" of the skeleton of the nose by means of intranasal incisions. Afterwards, osteotomy for narrowing the nose, removal of the hump, modeling of the tip and addition of cartilage or bone for the correction of a saddle deformity can be done. It is our experience that if any supporting structures such as cartilage or bone are needed, they should be autogenous. Whenever possible, we avoid using homologous tissues or any foreign substances such as acrylics as permanent implants. A combination of general anesthesia and a local analgesic agent is employed. Usually there is little pain either during or after the procedure.

MISCELLANEOUS PLASTIC PROCEDURES

One of the most satisfactory plastic procedures is the correcting of protruding or "flop" ears (Figures 13 and 14). Nature often becomes too generous in the development of ears, and the antihelix may be absent. We feel that correction should be done by the time the youngster first goes to school, for many children with "flop" ears are subjected to ridicule by their playmates. Parents often complain of their child's being called "donkey ears." After plastic surgery has been done, the patient immediately gains confidence and assurance that he is a normal individual. Many adults seek this type of surgery for economic as well as esthetic reasons.

The operation is a fairly simple procedure consisting of construction of the antihelix and reduction of the post-auriculocephalic angle from an obtuse to an acute one, with the result that the antihelix and scapha are brought nearer to the head. Care must be taken that the external ear is not plastered too close to the head, but assumes a natural position. One makes the new antihelix by removing a small strip of cartilage and/or by making a linear incision in the cartilage. Complications are rare, and the results are most satisfactory.

Certain cosmetic defects such as tattoo marks, pitted acne scars and oddities of pigmentation can be successfully treated through the use of sandpaper, a steel brush driven at high speed, or other abrasives. One must avoid using the abrasive agent too deeply. Simple petrolatum dressings are applied, and healing takes place in about two weeks.

Whenever a portion of the mandible is removed, the normal spacial relationship must be maintained until the defect can be filled by means of a bone graft. At present, we are using acrylic prostheses for primary replacement of the partially resected mandible until conditions are favorable for the implantation of a bone graft.

Cancellous bone, which may be obtained from the crest of the ilium, is of great value in filling defects of the frontal bone or in old, unreduced malar fractures. Occasionally, it is necessary to obliterate a large frontal sinus. The marked depression that this procedure usually leaves can be

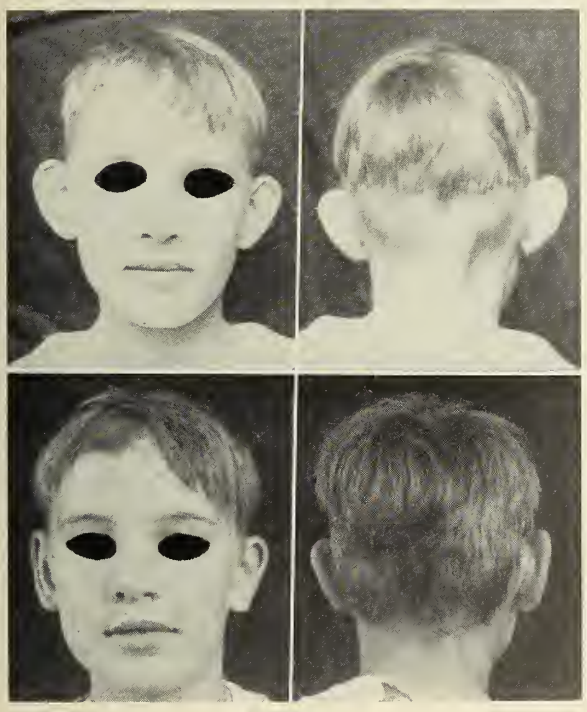


Figure 13



Figure 14



Figure 15

corrected if one makes an incision in the hair line and implants diced bone to fill the defect. The cancellous bone can be cut into small pieces by means of a sharp chisel or grinder. Diced cartilage can also be used, but we prefer autologous cancellous bone (Figure 15).

The receding chin that results from a lack of development of the symphysis may be corrected very simply through the use of an autologous bone graft from the crest of the ilium. A model is made of some plastic material. Both cortical and cancellous bone are taken from the hip and cut to the size of the model. Multiple green-stick fractures are made both through the cancellous and through a part of the cortical bone to permit molding. An incision is made just under the symphysis, and the graft is inserted, with the cancellous portion externally beneath the periosteum. On occasion, it may be necessary for one to hold the graft in place by wiring it to the mandible, but not always (Figure 16 and 17).

Reconstruction of the entire external ear is one of the most difficult operations in plastic surgery. Whenever possible, we urge the use of a prosthesis. If reconstruction is desirable, autogenous or maternal cartilage may be used. The operative work may begin when the patient has passed his fifth birthday, but it is preferable to delay it until somewhat later. The cartilage is modelled and buried in the post-auricular area. Afterward, many steps are necessary, including skin grafts, tube flaps from the neck, etc. Very few plastic surgeons are able to make a new external ear which in any way approximates the normal. In many instances a rudimentary stump is present. Under these circumstances, it may be unfolded and set back to normal position when the patient is about two years of age. The cartilaginous fragments are unfurled and transplanted upward and held in place by means of silk sutures. Later, the work is continued (Figure 18).

Atresias of the external canal usually are parts of a combination of deformities. Usually one also finds an absence of the external canal, deformity of the middle ear and ossicles and, at times, congenital deformity of the internal ear. There may be any combination of those three. If there is one normal ear, with normal hearing, nothing should be done to the deformed ear as far as hearing is concerned. If both ears are involved, then plastic operations should be done. Normal hearing, of course, can never be accomplished.

Scars are classified as hypertrophied, keloid, depressed, contracted, unstable and smooth. Space will not permit an extensive description of them or a full discussion of the technics employed in their removal. We can merely list some fundamental principles to be observed—most of them having to do with the suturing of wounds from which the scars are later to be removed:

1. The suture material should be as fine and flexible as possible.
2. Sharp cutting, atraumatic needles should be used when one approximates the skin edges.
3. Skin edges should be everted slightly.
4. If a scar is excised deeply, the underlying subcutaneous tissue must be approximated with fine, buried sutures, the knot being inverted.
5. Sutures must not be tied too tight.
6. Tension should be avoided at all times.
7. Sutures should be removed as soon as possible, usually between 48 and 72 hours after the operation. Afterwards, the incision should be held in place or reinforced by means of collodion strips, adhesive tape or something of the sort.
8. Unless the surgery is urgent, never attempt

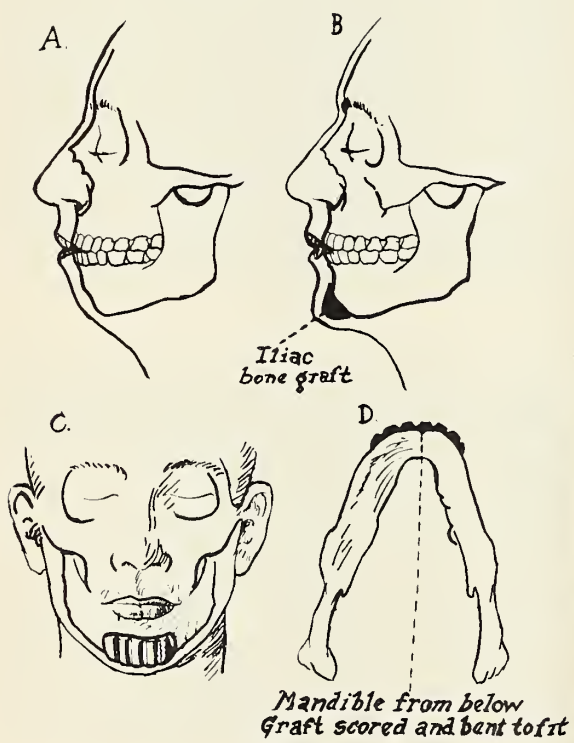


Figure 16

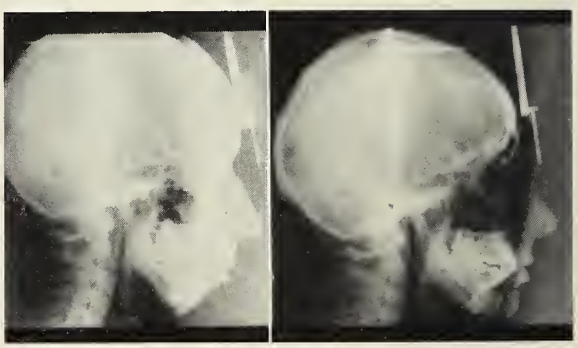


Figure 17

to remove a scar in the presence of an infection.

Keloids often cause trouble because of their tendency to recur. Eight hundred roentgens of X-ray within the first week following operation may be of value in inhibiting the growth of young fibroblasts and in decreasing the vascularity by obliterating small arterioles (Figure 19).

SKIN PLANING HAS LIMITATIONS

Although skin planing is the best treatment yet devised for improving the appearance of acne scars, Drs. Herbert Rattner of Chicago, and Charles R. Rein, of New York, report in the November 26, 1955, issue of JAMA that it has its drawbacks. Specifically, they say that it "cannot produce miraculous new skin."

The operation, first introduced in 1952, is new in technic, though not in principle. The skin is "frozen" and then abraded with a motor-driven wire brush, which is manipulated in short strokes. More than one treatment is often necessary.

Both the report and the accompanying JAMA editorial warn that patients must understand that results may fall somewhat short of their expectations. The editorial says, "Complete dissatisfaction can be expected in those persons who regard their scarred skin as solely responsible for their failures and discontentment in life. An improved skin will not have the magical effect of bringing them the social and economic success that they expect. On the contrary, it removes the excuse the patient has used for his failure. There is a real possibility in such patients that harm will be done by converting a minor psychological disturbance into a severe one."

Objectively measurable results depend to a large extent upon the skill of the operater and the depth and shape of the scars, the doctors reported. Results are more satisfactory on the face than on the chest, shoulders, back or neck. And scars of recent origin apparently respond better than do old ones.



Figure 18



Figure 19

State University of Iowa College of Medicine

Clinical Pathologic Conference

October 5, 1955

SUMMARY OF CLINICAL FINDINGS

A 68-YEAR-OLD WHITE MAN was admitted to the hospital with the entrance complaints of loss of appetite, weight loss and weakness. Five weeks before admission he noted a loss of appetite. There was no associated abdominal pain, but he did vomit on several occasions within three weeks before admission. Two weeks before admission, two black, tarry stools were noted. He estimated a weight loss of 35 lbs. over a five-week period. Generalized weakness developed early in the illness, and progressed so that for about a week the patient had been unable to walk.

In 1918, the patient had had a severe illness diagnosed as influenza. Eleven years ago he was in Oakdale Sanatorium with tuberculous peritonitis, pulmonary tuberculosis of the left lung and a right pleural effusion. A laparotomy was performed and a thorocentesis was done. After two years of institutional rest care, he was discharged as an inactive and arrested case of tuberculosis. In 1926, he sustained a traumatic injury to his left eye, with loss of vision. Thirty years ago he had gonorrhea, and in recent years had noted some narrowing of the urinary stream and hesitancy of urination. For three years he had dyspnea on exertion and very slight ankle edema. He stated that he had had a very high alcoholic intake as a young man, but as far as he knew, he had never suffered any ill effects from it.

His mother had died of tuberculosis.

Physical examination revealed blood pressure of 88/68 mm. Hg., pulse rate of 88 beats per minute, and respirations 16 per minute. There was dryness and wrinkling of the skin, with some areas of an erythematous, lichenified scaly dermatitis on the dorsal aspect of the left arm, right forearm and back of the neck. The left eye demonstrated no light perception. The pupil was small and fixed, and the lens was cloudy. The right eye reacted normally. Fundoscopic examination of the right eye showed some arterial narrowing. The chest showed an increase in the anterio-posterio diameter, with limitation of movement of the bony thorax on inspiration. There were no abnormal findings noted on percussion and auscultation. The heart was not enlarged to percussion. The tones were distant. A2 was louder than P2, and there were no murmurs. The abdomen was soft and flabby, with no palpable masses or organs. The genitalia and rectum were normal. The extremities showed moderate clubbing of the fingers and bony enlargement of the knees and wrists. The calf muscles were flabby and atrophic. The neurologic examination revealed a coarse intention tremor. Positional and vibratory senses were normal. The reflexes were equal and hypoactive.

Laboratory findings included a negative urinalysis and a positive Myer's test for blood in the stool. The hemoglobin was 12.2 Gm. per 100 cc. The leukocyte count was 8,600 per cu. mm. The differential blood cell count was normal. The sedimentation rate was 65 mm. per hour. A complement fixation test for syphilis was negative. The chest x-ray film revealed thickened pleura in the costophrenic sinus. X-ray studies of the stomach, the small and large bowels and the skull were normal. Total proteins were 7.08 Gm. per 100 cc. of plasma, with an albumin of 3.9 Gm. and globulin 3.18 Gm. Bence-Jones protein was absent from the urine. The spinal fluid proteins were 82 mg. per cent. Spinal fluid sugar was 57 mg. per 100 cc. Gastric juice and sputum for tubercle bacilli were negative by smear, guinea pig inoculation and culture.

The consulting neurologist made a diagnosis of moderately advanced Parkinsonism. Therapy consisted of bed rest and a high caloric diet. One week after admission, the patient had syncope, with convulsive movements of the arms and legs lasting about two minutes. Two weeks after admission, the following statement was made by his physician: "The patient is in status quo. He states that he feels relatively well." The next morning at six o'clock he was found dead in his bed.

CLINICAL DISCUSSION

Dr. Paul M. Seebohm, Internal Medicine: Because it is impossible to perform every clinical laboratory test upon every patient, the astute evaluation of signs and symptoms at the bedside is still the heart of the practice of medicine. No one in recent years has done more to emphasize that fact than Dr. Bean. At this time, he will discuss the protocol and attempt to show us how easy or how difficult clinical evaluation can be.

Dr. William B. Bean, Internal Medicine: Dr. Seebohm has given me the sort of introduction that is proper for a man who is about to fall flat on his face.

Clinical pathologic conferences can be presented in various ways. Some, like this one, are tackled as "who dunnits," and others as descriptions of well-recognized problems where therapy or some peculiar quirk of the clinical course is to be emphasized. The CPC is an academic exercise which has now

established itself thoroughly as a part of the teaching of undergraduate and graduate medical students of all ages. Just as in confronting the patient at the bedside, the clinician may be likened to a dramatic critic who has been allowed to see no more than the fourth act of a five-act play, not knowing except by context what has gone before, and not knowing except by anticipation what is to occur in the fifth act. That latter segment of his ignorance, more frequently than not, brings him to his Waterloo at the hands of the pathologists.

I launch into a discussion of this poor man's problem on the basis of evidence not really so good as that which I usually have at the bedside, for it has been provided me at second or at third hand. You, as well as I, have been provided a short biography of the patient, representing the entirety of his life, his troubles, his diseases, and some of the other interesting things that happened to him. My problem is that of pulling this necessarily fragmentary account into perspective and of undertaking to tell you what the pathologist will spread before you in more elaborate terms and in pictures taken at autopsy.

Because you have read the protocol, I shan't go through it word for word, but I should like to call your attention to some of its salient features. The man's present illness began at the age of 68 with loss of appetite, loss of weight and loss of strength. The protocol doesn't tell us what illness he had. Rather, it says merely that he vomited and that he had two black, tarry stools. This report would certainly indicate that he had blood in his alimentary canal, and it would make it probable that he had blood in the upper part of his alimentary canal.

The patient estimated that he had lost 35 lbs. during a period of five weeks. That is a pound a day! When a patient tells you he has lost weight, it is well for you to analyze his report quantitatively, to see whether you can make any sense out of it. If any of us stopped eating completely and were able to continue our ordinary daily activities, we should probably lose three or maybe four pounds a week. This man had been losing weight at twice that rate. Thus it is obvious that something more than the ordinary was going on. In short, it suggests an increase in caloric needs as well as a decrease in caloric intake. Anyone's judgment is fallible, and this man may have lost no more than 10 or 15 lbs., but he was of the opinion that he had lost 35 lbs. Allowing for some differences in scales and for the fact that he may have been weighed in the hospital without his clothes and weighed at home with his clothes, he had lost much weight. Regardless of the margins for error, it seems that this man had been losing weight at what would be almost twice what one would expect of someone who merely had stopped eating, and that spectacular weight loss suggests one of two things. When one can't find any evidence that a patient has lost food or fluid in the form of vomiting or diarrhea, one tends to conclude that he must have a heightened metabolic rate of the kind associated with an infection or a neoplasm. An infection may accelerate the metabolism. A neoplasm may have its own caloric requirement, which is probably over and above what can be accounted for as a transformation of the calories into the substance of the tumor. The beginning of the story suggests that the patient under discussion was undergoing something more than just a depression from some disease which had caused him to lose his appetite, to stop eating and to lose weight.

Generalized weakness is a fascinating symptom, but it is so nonspecific that it doesn't give us any strong clue. It could be explained well enough in our patient's case on the basis of caloric imbalance—merely using more calories than he was taking in. That kind of transaction can be responsible for weakness.

Now we come to a series of items from the patient's past history, the chief of which is that he was a patient in Oakdale, with recognized pulmonary tuberculosis and tuberculosis of the peritoneum. He had a chest tap, and he had his abdomen opened. We have unequivocal evidence that he had tuberculosis during the period before present-day chemotherapy. After two years of rest, localized and generalized, he improved. When he was discharged, his tuberculosis had been arrested. It seems to me that the unhappy accident of his having had gonorrhea has very little bearing on our problem. There is a very hopeful statement in the protocol that as a young man he drank very heavily and that he was unaware that alcohol had had any ill effects upon him. That is a useful bit of information, but it doesn't bear very heavily on his recent condition. Anyhow, it was just his opinion. Now that he is dead, we can't be sure about it.

Next, we come to the physical examination. The first thing that we note is a blood pressure that is lower than that which one ordinarily sees even in a fairly sick person, unless he is tipping over in the direction of shock. The question at issue is whether that low blood pressure represented anything more than a profound and overwhelming debility, or whether it represented the possibility that he had a disease associated with low blood pressure. I'm speaking now of Addison's disease, which you must look for in anyone who has had tuberculosis. His heart rate wasn't fast enough for him to be in clinical shock, and there is nothing else to suggest it. Respirations were not labored, although in the past he had had some dyspnea on exertion and had had ankle edema, subgesting that perhaps he had had a mild cardiac failure, the kind we usually see in old people with coronary arteriosclerosis. I can't make anything very specific out of the description of the lesion in the skin. It doesn't sound like pellagra, and it certainly doesn't sound like lupus vulgaris, the tu-

berculosis of the skin. It doesn't sound like a good description of acanthosis nigricans, a rare dermatologic condition seen in people with abdominal cancer, although that is a possibility.

The physical examination is really notable for its lack of positive clinical findings. The belly was soft, the abdomen was unremarkable, the chest revealed emphysema and there was some fixation of the chest such as one might expect of a patient who had scars of the lungs and had had an ancient tuberculous process. Tuberculous peritonitis leaves very little residue in some instances. It is not surprising that 11 years later he had nothing to show for it. In the absence of further information, the occurrence of moderate clubbing of the fingers needs to be looked at in three ways. First, if clubbing of the fingers occurs as a congenital finding, it has no ominous clinical significance. It may be familial, and it may be the cause of a great deal of sad confusion—iatrogenic distress—when a doctor assumes that it has some necessarily ominous meaning. Second, it may occur as a sequel to pulmonary tuberculosis, where there is a septic process, tuberculous empyema or mixed infections. Occasionally, although very rarely, it occurs in apparently uncomplicated pulmonary tuberculosis. Thus, though it is incompletely defined, this may be a situation that arose in our patient years ago, when he had pulmonary tuberculosis. I shall assume that that is the correct interpretation. Third is congenital or septic heart disease. The bony enlargements, I suppose, mean merely that the patient had lost a great deal of his substance.

He had an intention tremor, the kind of thing we see in demyelinating diseases and in various neuropathic disorders of the central nervous system. Other than simple nervousness, tension or, perhaps, hyperthyroidism, multiple sclerosis is the commonest cause. The neurologic consultant thought it most likely that he had Parkinsonism. The remarkable thing about the tremor in Parkinsonism is that it stops with intention. A person with Parkinsonism may be shaking a table to pieces merely by resting his hands upon it, but he can stop his tremor in time to catch a baseball that is tossed to him. If you ask him to point to his nose, his hand will shake all the way to his face, but then stop shaking in time to avoid damage to it. A person with intention tremor gets going and does very well until he comes to the crisis of actual pointing, and then there usually is a violent tremor, exaggerated as he nears his goal. I don't know the significance of this somewhat paradoxical combination.

The laboratory findings in this case are not helpful, except in that some of them are negative. We know that sometime back this man had lost blood, for he had had two tarry stools. He had very little anemia. His hemoglobin wasn't unusually low for a man of 68. He may have been anemic but dehydrated. Perhaps his low blood pressure is in keeping with that sort of situation, although we have nothing specifically stating that he was dehydrated at the time that he was observed clinically. The sedimentation rate was fast. We have been given no indication that he had a fever, and I assume that if he did have one, it was mild and didn't strike the person who abstracted the record as having any clinical significance. The fast sedimentation rate, however, suggests some infectious process. It likewise is a non-specific sign which indicates activity in a great many different kinds of things. Now the x-ray is said to have revealed thickened pleura. Would you comment on the films now, Dr. Lodwick?

Dr. Gwilym S. Lodwick, Radiology: In a film of the chest, apparently taken while the patient was in a reclining position, we could actually see very little. The lungs were quite clear throughout. There was some pleural thickening at the right costo-phrenic angle which we assumed was the sequel of some old inflammatory disease of the pleura, but we saw no evidence of any active disease.

Dr. Bean: He had a right pleural fusion at the time he was at Oakdale 11 years ago.

Dr. Lodwick: What we saw in the films would have been a sequel to that episode. The patient was later sent to the x-ray department with a request for a gastrointestinal series. The notation was made that carcinoma of the stomach was suspected, but the examination was negative for carcinoma or other disease in the upper gastrointestinal tract. A segment of colon appeared narrowed on the four-hour film. The possibility of carcinoma of the colon was excluded by barium enema.

Dr. Bean: You say the *possibility* was excluded. I take it you mean that it is highly unlikely.

Dr. Lodwick: Right.

Dr. Bean: Well, the roentgenologist has been of assistance by telling us of a great many things that he didn't find. It is very helpful to be told that something you have been looking for hasn't been found by the technic that was used, but I should like to warn you, and I'm sure Dr. Lodwick will agree, that despite perfect technic and perfect cooperation the mere fact that a lesion is not found at the time a patient is x-rayed doesn't allow us to exclude it as a possibility. It reduces its probability, and that is all. The going would get very rough in this particular case if all of the possibilities were eliminated, for we don't have any positive findings. I am getting right down onto the thin edge of the distribution curve, and am going to fall off the edge if I can't make a diagnosis without some strong and positive findings.

Well, anyhow, I'm glad to know that the physicians in charge of the case were looking for carcinoma of the alimentary canal. That seems to me a very fine guess in a man who has lost a great deal of weight, who has vomited some, who has

lost his appetite and who has had tarry stools. He didn't have any abdominal sign such as a stomach cancer big enough to feel or a liver studded with metastases. Those he did not have. His skull was normal. That may have some bearing upon the way he died. The serum globulin is a little high. That may represent nothing but a relative loss of serum albumin. I don't know what to make of that. There is no indication that this man had abdominal pain or bone pain, and yet he had a wasting kind of disease, with a neoplasm highly suspected, and although the skull film was negative, they thought perhaps he had multiple myeloma. In any event, the urine was tested for Bence-Jones protein and none was found. Then a spinal puncture was made, and though nothing is stated about the dynamics, I assume they were normal. No cells were described as having been found. The sugar was normal, but the spinal fluid proteins were high. That is a relatively non-specific sign, but it may be caused by a brain tumor. It may occur after such things as cerebral embolism, cerebral infarctions and hemorrhage, or with various infections that produce irritation. It occurs characteristically in the Guillain-Barré syndrome, in which a great deal of protein is present and little or no increase in cells. We have nothing in the neurologic findings to give us clues. Thus, we merely have a sign that there may have been some chronic irritation within the central nervous system reflected in an increase of the serum protein, without an increase in cells. The staff physicians were on the lookout for tubercle bacilli, although the x-ray of the chest didn't give any suggestion whatever of an active process. They thought it was worthwhile to study the alimentary canal and to obtain sputum, but tests for various kinds of tubercle bacilli were negative.

One week after admission, and one week before his death, the patient had an attack described as syncope, lasting two minutes and associated with convulsive movements of the arms and legs. In a person who has a sudden asystole, or the Adams-Stokes syndrome, ordinarily with a convulsion, the phase from asystole until actual twitching usually lasts longer than two minutes, although that isn't invariably true. This suggests to me that the convulsion was of the kind that one might see with an expanding brain lesion with a tumor or something else producing a swelling within the brain substance. Although we don't have a description saying that the fit had the Jacksonian march of an epileptic convulsion, I'm inclined to think that at least it is a tenable diagnosis. We have no mention of bradycardia or asystole. Indeed, we aren't told of the heart's being examined at the time he had this convulsion.

Finally, you will see what clinical judgment sometimes does if you take the patient's word for how well he is or how well he feels. The day before he died, he was feeling well enough so that his physician said that he was in status quo. He was obviously alive, and there was no very remarkable progress in his symptoms, but lo and behold, the next day they found him dead in bed!

The problem that I face now is to see whether I can put all of these somewhat cracked and perhaps spoiled eggs into one basket. First of all, it is wise not to force a great miscellany of different signs and symptoms into a diagnostic framework, for especially in old people, there may be a multitude of diseases. But as an intellectual exercise, whenever one sees a sick person who has had a series of different kinds of trouble, it is wise that one try to fit them into a pattern of disease that can involve many systems of the body.

This man had had known tuberculosis. He died after a course of about seven weeks from a disorder characterized by loss of appetite, loss of weight, loss of strength, vomiting and tarry stools, even though a swarm of laboratory studies had been negative or relatively negative. These studies were made in a search for tuberculosis and for a tumor, and I agree that among the possibilities those should certainly have ranked high.

In an attempt to give a single accounting of all of the patient's ills, I should like to set forth the possibility that he had a reactivation of his ancient tuberculosis. Tuberculosis is in keeping with the elevated sedimentation rate, and although the picture isn't perfectly typical, we know that the most characteristic finding about tuberculosis in elderly people is that it isn't characteristic and isn't typical. The disease runs a course and presents features that are different from those found in younger people. Thus, I should suggest tuberculosis as the most likely explanation of all of the findings in this case, specifically a tuberculous caseation and destruction of the adrenal glands, perhaps with calcification. I think that the patient had a tuberculoma of the brain that acted like a brain tumor and was responsible for producing the syncopal episode a week before he died. It might have had some connection with his dying in this unexpected fashion. The possibility that he had a lesion in the alimentary canal, maybe a reactivation of a tuberculous lesion in an old Peyer's patch in the small intestine, might explain some of the other findings.

The other possibility, and one that we can't exclude, even in the face of the remarkable negativity of the x-rays and other evidence, is that this man died as a result of carcinomatosis, perhaps with a cerebral metastasis.

This man may have died of a great many things that I haven't even thought of. It is very important in our approach to any clinical problem to pay attention at least as much to the way we go and the direction we take, as to whether we land in exactly the right place. If the train we board is the right train and if it goes in the right direction, the chances are that we shall get off at the right

city. But if we are on the wrong train, or if we board the train on the wrong day, or if we go in the wrong direction, we shall stay badly mixed up. I hope you have learned that this is the way I approach this kind of problem. I shan't be upset if I find that I've got off the train at the wrong place. It has happened before, and I'm sure it will happen many times in the future.

Dr. Seebohm: The presenting complaints of this patient could have resulted in his being admitted to the surgical ward, rather than to the medical one, and if such had been the case, we wonder how Dr. Tidrick would have faced the problem. We have asked him to comment on Dr. Bean's conclusion and to add any information or conclusions that he would like to present.

Dr. Robert T. Tikrick, Surgery: I followed Dr. Bean's analysis of this case with considerable interest. I shan't take up much time, for I can't elucidate this thing. The material has been presented on the summary sheet, and Dr. Bean has ably clarified it. There is room for little more than a bit of additional speculation.

I do think that Dr. Bean was a bit hasty, perhaps, in glossing over the alcoholic years in this man's background, and quite by oversight he failed to mention that Dr. Lodwick's examination of this man's gastrointestinal tract with barium failed to include the esophagus. Probably no one thought about asking him to do that, for I'm sure he would willingly have included it. A barium swallow might have told us something. It is not an infallible means of ruling out varices of the esophagus, but it would make us feel a little more comfortable in explaining away this history of two tarry stools. If patients bleed massively from these occasional varices, usually there is a hematemesis, though not invariably.

There is also another large skipped area in this man's gastrointestinal tract to which Dr. Bean has made oblique reference in his conclusions by saying that he thought there might be a tuberculous involvement in one of Peyer's patches. That is to say, it would have been equally useful for us to have had a report on a so-called motor meal, for though it is even less frequently productive of a diagnostic information, it is still worth doing, since occasionally in the event of neoplasia involving the small bowel, more frequently in events that lead to partial obstruction of the small bowel, and rarely, I think, in terminal ilio-tuberculosis, it provides information that is of distinct help to us. So we have those two overlooked parts of the gastrointestinal tract.

Likewise, it would have been of comfort to have had a sigmoidoscopic examination. Usually the lesions in the lower part of the colon giving rise to bleeding are unaccompanied by so-called tarry stools. And *tarry stools* is a vague and badly overworked term. We usually put those words into the patient's mouth, rather than make specific inquiries about the matter. I take *tarry* to include almost any color of dark hue that seemed abnormal to the patient.

Regarding Dr. Bean's conclusion that a tuberculoma involving the central nervous system had caused syncope and convulsion, I should like a little bit of anatomic clarification. I don't quite visualize it. Is he suggesting that it straddled the saggital sinus, that it spread out over the surface of the brain like a pancake, or just how did it behave? His vagueness in that respect seems inconsistent with the clarity and smoothness of the diagnostic reasoning of his other speculations on this man's illness. In other words, Dr. Bean, I wonder whether in that particular spot you aren't out on a distal segment of the limb. Now, mind you, I have nothing better to offer. I think his surmise about the patient's weight loss, which comes to something a little more than three-fourths of a pound a day, is too great for one to explain on the basis of simple failure to eat. His history of having had ankle edema and dyspnea, *et cetera* is certainly a strong indication that a portion of it, at least, was due to loss of water during the terminal portion of his illness.

Now, Dr. Bean's final remarks about the desirability of being on the right train and, if I may change his figure of speech, his not caring whether or not he hit the rabbit with his diagnostic gun—all of that seems to me to belie the aim of clinicians. Really, it seems to me that it is more important that we try to reach the true diagnosis even by guesswork, than that we be overly concerned about how we play the game. I wonder. It has not been my experience that just my shooting a shotgun made rabbits roll over and die. Regardless of how one goes about the process of arriving at a correct diagnosis, I wonder here, Dr. Bean, whether both of us aren't forced into some simple guesswork in such a case as this. Therefore, let me just guess that this poor man's tuberculosis is a forgotten chapter, and that he died of generalized neoplasia.

Dr. Bean: The point I wished to emphasize is that it is important for us to teach the method of moving clinically along the right road. Naturally, I'd rather reach the right town and the right house number than miss, but I'd rather be consistently on the right track than occasionally reach a magnificent diagnosis on the basis of almost pure chance. I've known physicians who became famous as the result of a lucky guess. No one paid much attention to the 49 people who died because they didn't have the right diagnosis, but many people paid a great deal of attention to the one patient who died with the right diagnosis.

Dr. Rubin H. Flocks, Urology: I may be out on a limb, too, but I should like to emphasize a point in regard to this situation, if I may. A 68-year-old

man with loss of appetite, weight loss, weakness, black tarry stools and, later on, convulsions, with a history of tuberculosis, urethral stricture and possibly some enlargement of the prostate could conceivably have renal insufficiency as the underlying situation, in spite of the negative urinalysis. What was the renal function? Was it judged solely on the urinalysis?

Dr. Seebohm: Urinalysis was the only test made. No blood urea nitrogen was determined. Two urinalyses were done. Specific gravity was not recorded on one, but it was 1.012 on the other. Would you expect a blood pressure of 88/68 with renal insufficiency, Dr. Flocks?

Dr. Flocks: In the terminal stages of renal insufficiency, that would be quite possible.

Dr. Seebohm: A postmortem blood urea nitrogen was done. That was 32. I think that might rule out your tension there.

Dr. John R. Carter, Pathology: The most striking observation at autopsy was massive bilateral caseous tuberculosis of the adrenal glands. There was virtually no normal adrenal gland tissue remaining. There was a focus of active productive fibrocaseous tuberculosis of the right apex, subpleurally, approximately 2 cm. in diameter. It was decidedly of more recent origin than the tuberculous involvement of the adrenal glands. Although admittedly a guess, three months appeared to have been the duration of the apical lesion. Miliary tuberculous lesions of the liver were also encountered. Except for two findings, there was no evidence of old tuberculous peritonitis. One of these was a smouldering chronic granulomatous tuberculous infection in the capsule of the spleen. This capsule was greatly thickened, but there was no involvement of the parenchyma. Second, in the right pericolic gutter there were two or three scattered fibrous nodules that were consistent with healed tuberculosis. No abdominal adhesions were encountered. There was evidence of recent weight loss, but there was no significant pigmentation of the skin.

The esophageal hiatus did admit four fingers, but at the time of the autopsy there was no herniation. Whether there had been herniation during the patient's life is difficult to say, but if it had occurred, it might have accounted for the gastrointestinal bleeding. The upper two-thirds of the stomach did exhibit several small areas of hemorrhage on the mucosal surface. There was no evidence of any type of inflammatory lesion in the gastrointestinal tract, except for that mentioned previously.

No neoplasm was found. There was minimal generalized arteriosclerosis. Although there was early, minimal fatty metamorphosis, no cirrhotic changes of the liver were found. The pituitary gland was of interest in that, as so commonly happens with atrophy, carcinoma or tuberculosis of the adrenal glands with adrenal insufficiency, there was an almost total absence of basophils, and a concomitant relative increase in chromophobes. Tubercle bacilli were cultured from the adrenal glands, and the guinea pigs were positive for tubercle bacilli.

From the photomicrographs, it was apparent that only a tiny fragment of recognizable adrenal tissue remained. There was massive caseation necrosis with hyalinized scar tissue. In the small remaining focus of cortical adrenal cells one could see the vacuolization and fatty change. This type of change might very well occur irrespective of exhaustion or atrophy or any other type of specific lesion. The blood supply to this focus obviously had been compromised, and the fatty changes noted in the slide could be strictly a degenerative one. The adrenal glands weighed 8 and 10 Gm., respectively. There was only minimal calcification.

A photograph of the apex of the right lung showed a mass of proliferating granulation and granulomatous tissue. There were large masses of epithelioid cells, with occasional Langhans-type giant cells. Small focal areas of caseation necrosis were apparent. The caseation necrosis both in the lung tissue and in the liver was not extensive. The lesions observed in the lung were a recent, actively progressing and productive type of process, quite in contradistinction to that observed in the adrenal glands.

A photomicrograph of the liver again revealed the tuberculous inflammatory lesions, with small focal areas of caseation necrosis, degenerative changes in the adjacent liver cells and a mild degree of fatty metamorphosis in focal areas.

A section of the spleen showed principally the thickened splenic capsule, with a small amount of underlying parenchyma. In one area, the capsule measured 0.5 cm. in thickness. There was considerable hyalinization and scarring on the peritoneal surface, but there was an active, smoldering, chronic granulomatous reaction deep beneath the surface of the capsule, impinging upon the parenchyma.

Very briefly, I should like to comment on the possible pathogenesis in this case, reflecting what I hope has been some judicious speculation. It is difficult to reconstruct a case such as this completely, but based upon the clinical evidence, upon the biologic history of tuberculosis and upon experimental data, there are certain conclusions that I think we may draw. It is a fact that there was a decided difference in age between the lesions noted in the adrenal glands and those noted in the apex of the right lung and in the liver. It is also a fact that the patient had had tuberculosis 11 years ago. We might, therefore, postulate that 11 years ago when the patient had pulmonary tuberculosis, he probably had a tuberculous bac-

teremia at some time, possibly repeated episodes of it, and at that time developed tuberculosis of the adrenal glands. Eleven years is not an exceptionally long period for a slow, progressive, smouldering tuberculous infection, particularly when it involves the adrenal glands. Recently, something happened to the patient that changed the clinical picture as well as the biologic history of his disease. For one thing, he was 68 years old, an age at which one might well expect the host responses to an infection to be at a rather low ebb. The adrenal reserve was compromised until, approximately two months before he died, the adrenal reserve became practically non-existent. Because resistance to viral, rickettsial and bacterial disases can be correlated at least to some extent with adrenal function, we can postulate that with the decrease of adrenal reserve, with his age of 68 years and perhaps with other extraneous factors, resistance to infection decreased. We may then presume that as a result of this decrease in host resistance, the patient had a flare-up and an endogenous spread of his tuberculosis.

I have neglected to mention that near the area of active tuberculosis in the right apex, there were also several old scarred areas which presumably had been active tuberculosis at one time. Thus, we might postulate a flare-up of this old tuberculous lesion and the development of a very active proliferative tuberculous lesion, with subsequent tuberculous bacteremia and miliary spread to the liver and possibly to other organs too. This would appear to be, then, the most logical sequence of events that would account for the clinical course and for the pathologic changes that were noted at autopsy.

Parenthetically, I might also mention that tubercle bacilli can be cultured from old "healed" calcified lymph nodes or tuberculomas in approximately 30 per cent of such lesions. In other words, even in hyalinized and calcified areas, tubercle bacilli may remain viable for many years. This case also emphasizes another point, namely that of tissue reserve. We observe over and over again the extensive damage that certain organs can undergo before there is any evidence of their insufficiency. For example, approximately 90 per cent of the liver or the kidneys can be removed without there being any significant insufficiency or loss of function manifest. A similar situation obtains with respect to the adrenal glands. Thus, in the present case, it would appear that approximately 1 or 2 per cent of functioning adrenal tissue remained.

One or two points might also be made with respect to certain pathologic aspects of Addison's disease. Ordinarily, this disease process occurs in the third or fourth decade. This man was 68. The causes of Addison's disease are atrophy, tuberculosis, tumor and amyloidosis of the adrenal glands, with atrophy and tuberculosis being the commonest. In 1900, it is interesting to note, 80 per cent of all the cases of Addison's disease were due to tuberculosis. Now, approximately 50 per cent of the cases are associated with tuberculosis.

Finally, there is one item of significance relative to the epidemiology of tuberculosis to which I should like to call attention. I believe that Medlar was probably one of the first to point it out. Epidemiologists, for the most part, are of the opinion that it will be difficult to eradicate tuberculosis completely from the general population because of cases of the type represented by the patient under discussion. Cases of endogenous spread of tuberculosis in individuals of an older age group are not uncommon. For a variety of reasons, host resistance may decrease with a concomitant flare-up of an endogenous spread of tuberculosis, and, therefore, may subsequently spread to other members of a community. This case, I believe, emphasizes this point quite well.

Dr. Bean: Was there any examination of the brain?

Dr. Carter: The brain was examined carefully. There were no tuberculomas, and we could find no evidence of neoplasm. The brain in all respects was essentially normal.

Dr. Raymond F. Sheets, Internal Medicine: Did you examine the thyroid gland?

Dr. Carter: Yes, the thyroid gland was examined. It showed an exhaustion type of change that is commonly seen in Addison's disease, but frankly I was not able to determine in my own mind whether the atrophic changes noted in it were the result of the patient's age, or were due basically to atrophy of the adrenal glands. We see many thyroid glands in patients of this age who do not have Addison's disease but who show approximately the same degree of atrophic and fibrotic change that was observed in this individual. The degree of atrophy and fibrosis in the present case was not severe.

SUMMARY OF NECROPSY FINDINGS

At autopsy, there was evidence of poor nutritional status. No significant pigmentation was observed, except for small, red macular lesions of both lower extremities. Clubbing of the fingers was noted. The most conspicuous finding was the virtual replacement of both adrenal glands by masses of partially calcified caseation necrosis at the margins of which a smoldering chronic granulomatous reaction was apparent. Only tiny isolated foci of recognizable adrenal cortical tissue could be seen, and these showed extensive degenerative changes. A focus, 2 cm. in diameter, of active fibrocaseous tuberculosis was present subpleurally in the apex of the right lung. Elsewhere, the lungs were unremarkable except for focal areas of edema and pleural adhesions. The liver showed scattered foci of tuberculosis in an active stage. Mild, focal fatty metamorphosis was

noted, too, but cirrhotic changes were essentially lacking.

The esophageal hiatus admitted four fingers, but no herniation was present. Tiny hemorrhagic areas were present on the mucosal surface of the proximal two-thirds of the stomach. These may have been the source of the gastrointestinal bleeding. No other lesions of the gastrointestinal tract were found. In fact, in view of the history of tuberculous peritonitis, the gastrointestinal tract and abdominal cavity were remarkable for the absence of adhesions. Thick scar tissue was present on the anterior surface of the spleen, and in areas there was smoldering granulomatous inflammation in the deeper layers. There was no parenchymal involvement. Several 1-2 mm. white nodules of scar tissue (healed tuberculosis?) were present in the right paracolic gutter. Atherosclerosis was minimal. The brain was not remarkable. Tubercle bacilli were cultured from the adrenal glands, and the guinea pig test was positive for acid fast organisms.

The cause of death and of the majority of the patient's symptoms was adrenal insufficiency resulting from caseous tuberculosis of the adrenal glands, bilaterally.

NECROPSY DIAGNOSES

Fibrocaseous tuberculosis
  adrenal glands (massive caseation necrosis)
  apex of right lung
  liver
Healed tuberculous peritonitis.

MEDICAL EDUCATION MEETINGS IN CHICAGO

The role of advanced training in the over-all medical education picture will be discussed during a series of open meetings of licensure and specialty accreditation groups at the Palmer House, Chicago, February 11-14.

Special attention will be paid to current problems in residency training such as the basic science content of a residency program, the organization and administration of a residency program and the psychiatric viewpoint in training residents, during the all-day sessions on Saturday, February 11.

An open meeting of the Advisory Board for Medical Specialties will be held Sunday morning, with an open meeting of the Federation of State Medical Boards in the afternoon.

Monday's sessions will be devoted to discussions of trends in specialization problems relating to clinical faculty appointments and the private practice of medicine, and new approaches in medical education. The February 14 program will be conducted by the Federation.

More than 500 medical educators, officers and members of state licensing boards and others interested in medical education are expected to attend.

SECURITY TAXES

When Congress resumes its deliberations it should take more serious note of the growing public uneasiness lest the Social Security system be wrecked by too much "liberalization" of its provisions.

In election years (next year is one) most members of Congress have been prone to vote Government "handouts" to millions regardless of the soundness of the programs and of their boomeranging eventual effect on both recipients and all taxpayers.

Social Security already has mushroomed far beyond the original concept of it, born of depression, as simple enforced savings to ease the retirement of workers over sixty-five.

Three times Congress has voted to blanket more people under the program, to raise benefits, or both. All of these measures were adopted in election years.

Last summer the House of Representatives passed a resolution aimed at making permanently and totally disabled workers eligible for retirement benefits at the age of fifty, to make benefits available to women when they reach sixty-two and other liberalizing changes. The proposals will be considered by the Senate this election year.

They appeal, of course, to the heart, but threaten grave consequences. If the age bars are to be let down where will it end? A larger and larger percentage of citizens will be living in paid retirement and a progressively smaller percentage will be paying larger taxes to support the setup.

By 1975 the Social Security tax is scheduled to rise to 4½ per cent to work and 4½ to employer, at which point it will exceed the Federal income tax of many workers.

Unless Congress adheres to a well-defined age limit, benefits eventually will have to be watered down to the many or the tax burden will cause the whole thing to collapse of topheaviness.

Social Security, as originally envisioned, is a great humanitarian advance. But citizens, for their own protection, should let their delegations in Congress know that they do not want its future imperiled to serve short-term political ends.

—THE BALTIMORE NEWS-POST
December 5, 1955

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Coming Meetings

In State

Jan. 23-25	**Anesthesia.** SUI College of Medicine, Iowa City
Feb. 15-18	**Refresher Course for General Physicians.** SUI College of Medicine, Iowa City
Feb. 21-23	**Sioux Valley Medical Association.** Hotel Martin, Sioux City
Mar. 29	**Diagnosis of Surgically Remediable Heart Disease.** SUI College of Medicine, Iowa City
Mar. 30-31	**Urology.** SUI College of Medicine, Iowa City
Apr. 11	**Neurology.** SUI College of Medicine, Iowa City
May 16	**Allergy.** SUI College of Medicine, Iowa City

Out of State

Jan. 1-20	**Pain Syndromes: Diagnosis & Treatment by Regional Block.** University of Pennsylvania, Philadelphia
Jan. 2-6	**Physical Therapy and Occupational Therapy in Care of Poliomyelitis.** Georgia Warm Springs Foundation
Jan. 3-5	**Los Angeles Midwinter Medical Convention (85th Anniversary).** Biltmore Hotel, Los Angeles
Jan. 5-7	**Obstetrics for General Physicians.** U. of Minn. Center for Continuation Study, Minneapolis
Jan. 9-10	**Electrocardiography.** New England Center Hospital, Boston
Jan. 9-11	**Minor Surgery.** Mt. Sinai Hospital, NYC
Jan. 9-13	**Etiology, Diagnosis and Treatment of Heart Diseases.** New York University, NYC
Jan. 9-13	**Diagnosis & Treatment of Peripheral Nerve Injuries.** New York University, NYC
Jan. 9-14	**Pan American Congress of Ophthalmology.** Santiago, Chile
Jan. 9-20	**Diagnostic X-Ray.** Cook County Graduate School of Medicine, Chicago
Jan. 9-20	**Endaural Surgery.** New York University, NYC
Jan. 9-20	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 9-20	**Introduction to Radiological Safety.** New York University, NYC
Jan. 9-20	**Laryngology & Surgery of Larynx and Neck.** New York University, NYC
Jan. 9-20	**Radiological Health: Basic Course.** Taft Sanitary Engineering Center, Cincinnati
Jan. 9-Feb. 3	**Basic Course in Techniques of Using Radioisotopes.** Oak Ridge Institute of Nuclear Studies
Jan. 12-14	**Recent Advances in Clinical Medicine & Postgraduate Clinical Seminar.** Albany Medical College, Albany
Jan. 16-18	**Am. Coll. Surgeons.** Hotel George Washington, Jacksonville, Florida
Jan. 16-19	**Surgery.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 16-20	**Elementary Electrocardiography.** Mt. Sinai Hospital, NYC
Jan. 16-20	**Fluid & Electrolyte Balance.** Tulane University School of Medicine, New Orleans
Jan. 16-20	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 16-20	**Dermatology and Syphilology for Non-Dermatologists.** New York University, NYC
Jan. 16-20	**Refresher Course in Basic Urology.** New York University, NYC
Jan. 16-20	**Tuberculosis & Other Pulmonary Diseases in Childhood.** New York University, NYC
Jan. 16-21	**General Practice Review.** U. of Colo. Med. Ctr., Denver
Jan. 16-21	**Surgery of Sympathetic & Parasympathetic Nervous Systems.** New York University, NYC
Jan. 16-21	**Cardiology.** Southwestern Medical School of U. of Texas, Dallas
Jan. 16-21	**Seminar in Ophthalmology & Otolaryngology.** (U. of Miami). Sans Souci Hotel, Miami Beach
Jan. 16-27	**Pediatric Refresher Course.** New York University, NYC
Jan. 19	**Arthritis.** U. of Buffalo School of Medicine, Buffalo
Jan. 19-20	**Obstetrics.** U. of Nebraska College of Medicine, Omaha
Jan. 20	**Massive Gastrointestinal Bleeding.** Acad. of Med. Cleveland & Cuyahoga County, Cleveland
Jan. 23-24	**Chest Diseases.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 23-24	**Sixteenth Annual Congress on Industrial Health.** Sheraton-Cadillac Hotel, Detroit
Jan. 23-25	**International Medical Assembly of Southwestern Texas.** Municipal Auditorium, San Antonio
Jan. 23-27	**Advanced Electrocardiography.** Mt. Sinai Hospital, NYC
Jan. 23-27	**Anesthesiology: Endotracheal and Related Methods.** New York University, NYC
Jan. 23-28	**Pediatrics, Obstetrics & Gynecology.** U. of Michigan Medical School, Ann Arbor
Jan. 23-Feb. 3	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Jan. 23-Feb. 3	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 23-Feb. 4	**Basic Problems in Cancer Therapy.** New York University, NYC
Jan. 25-26	**Gastroenterology.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 25-27	**Geriatrics.** New York University, NYC
Jan. 25-27	**Diabetes & Basic Metabolic Problems.** Southwestern Medical School of University of Texas, Dallas
Jan. 26-28	**Cancer Seminar.** Paradise Inn, Phoenix
Jan. 28-31	**Instructional Courses in Orthopedic Surgery.** Palmer House, Chicago
Jan. 30-Feb. 1	**Emergency Surgery for General Physicians.** U. of Minn. Center for Continuation Study, Minneapolis
Jan. 30-Feb. 3	**Dynamics of Endocrine Disease.** Institute for Metabolic Research, Highland Alameda County Hospital, Oakland
Jan. 30-Feb. 8	**Medical Care of Atomic Casualties.** Walter Reed Army Medical Center, Washington, D. C.
Jan. 30-Feb. 10	**Diagnosis and Treatment of Fractures and Dislocations.** New York University, NYC
Jan. 30-Feb. 10	**Cardiovascular Diseases.** Mt. Sinai Hospital, NYC
Jan. 30-Feb. 10	**Endaural Surgery.** New York University, NYC
Feb. 1	**Third Symposium on Office Procedures for the General Practitioner.** Sheraton-Cadillac Hotel, Detroit
Feb. 2	**Cardiovascular Teaching Day.** Albany Medical College, Albany.
Feb. 2-4	**Mental Deficiency.** U. of Minnesota Center for Continuation Study, Mpls.
Feb. 3-5	**Recent Advances in Therapy of Cardiovascular Disease.** Albany Medical College, Albany.
Feb. 4-5	**American Academy of Allergy.** Chase Hotel, St. Louis
Feb. 6-10	**Continuation Course in Neurology.** U. of Minnesota Center for Continuation Study, Minneapolis.
Feb. 6-10	**Endoscopy; Bronchoesophagology & Laryngology.** New York University, NYC
Feb. 6-10	**Pediatric Neurology.** Tulane University School of Medicine, New Orleans
Feb. 6-10	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 6-17	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 6-17	**Diagnostic X-ray.** Cook County Graduate School of Medicine, Chicago
Feb. 6-17	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Feb. 9	**Endocrine Disease.** U. of Buffalo School of Medicine, Buffalo
Feb. 11-12	**Los Angeles Obstetrical and Gynecological Forum.** Ambassador Hotel, Los Angeles
Feb. 11-14	**Fifty-second Annual Congress on Medical Education and Licensure.** Palmer House, Chicago
Feb. 13-15	**Electrocardiography.** U. of Nebraska College of Medicine, Omaha

(Continued on page xxiv)

Editorials

HAPPY NEW YEAR!

At this season the editors of the JOURNAL pause for a backward look at the 12 months that are ending, and extend to their readers hearty good wishes for a Happy New Year.

Undoubtedly the most significant happening of 1955 for Iowa physicians was the decision handed down by Judge C. Edwin Moore in late November reaffirming the Attorney General's opinion that by hiring pathologists and radiologists and by billing patients for the services of those specialists, Iowa hospitals have engaged in the corporate practice of medicine in violation of the law, and that the physicians who have entered into such arrangements with the hospitals have engaged in extra-legal practice. The complete text of Judge Moore's Findings of Fact and Conclusions of Law appeared in the December issue of the JOURNAL, and his Final Decree appears *in toto* in this issue.

During the past year, the Iowa State Medical Society's facilities for presenting medical topics to the public through television have been considerably increased. The programs are being broadcast not only from the Ames station, but also from ones at Mason City, Cedar Rapids and Sioux City. "Medical Diary," the series that was begun a month or two ago represents an improvement in dramatic quality and has been favorably commented upon by a great many of both laymen and physicians. Probably it is one of the best means for the improvement of medical public relations.

The State Society has made progress in the placement of physicians in rural areas where they were urgently required.

The SUI College of Medicine continues to maintain its high standing among the medical schools of the United States. Through the efforts of its various departments, significant results have been achieved in research projects. Post-graduate conferences and seminars are being held in Iowa City to furnish assistance to the physicians of Iowa and to acquaint them with recent advances in the various fields.

The coming annual meeting of the Iowa State Medical Society, to be held at the Veterans Memorial Auditorium in Des Moines, on April 22-25, already promises a well-rounded program of lectures by outstanding medical specialists, from which all members are sure to benefit. The new building in which the gathering is housed affords adequate facilities for the various general meetings and for group and committee sessions under one roof. The scientific and technical exhibits are no longer hampered by a shortage of space, and a record number of exhibitors are to present displays that will be of interest to all doctors.

It is not too early for you to plan your schedule and to make hotel reservations so that you may attend. It goes without saying that our annual meeting can succeed only if a high percentage of Iowa physicians attend.

It is probable that you have noticed the rather steady increase in the thickness of the JOURNAL that has occurred during the last 12 or 18 months. The basis for that growth is the increasing use that pharmaceutical manufacturers are making of it as a means of selling their wares. Publications such as ours are not intended to make money, of course, but growth of advertising revenue makes it possible for the Publications Committee and the editors to carry out their ideas for making the magazines more attractive and more informative, without dipping more deeply into the funds provided by membership dues. During 1955, we have increased the number of scientific articles in each issue, we have used more illustrations than ever before, we have carried color into the reading sections, and we have expanded our coverage of medical and personal news.

We are, of course, prepared to eliminate some or all of those expensive innovations if advertising revenue begins a decline. And whether it does or not depends largely upon you. By looking through the ads in each issue and by telling the detail men who call upon you that you have read about their products in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, you will be helping us and helping yourselves.

All of the officers and committeemen of your State Society have worked diligently throughout the past year, We hope that you will join with us in thanking them for giving us their leadership as we have striven together to improve medical care for the citizens of Iowa.

COOPERATION AMONG PROFESSIONS

Why, we should like to know, have the members of the learned professions in Iowa delayed starting to work together toward the achievement of their identical objective, the maintenance of the public welfare? The bulwarks that Congress and our state legislature have erected to protect the citizenry against the undertrained and unscrupulous people who masquerade as physicians or as members of the bar are constantly under attack, and the invaders frequently have been successful in forcing openings through which a few of them can creep.

From an editorial in the April, 1955, issue of the JOURNAL OF THE AMERICAN JUDICATURE SOCIETY, we learn that lawyers are currently alarmed about pro-

posals that Treasury Department rules be changed in an effort to permit accountants and other self-styled experts to render legal advice about taxes on a fee-for-service basis.

Law, the editorial points out, is neither easily nor clearly subdivisable, for at one time or another every attorney is concerned with the legal aspects of virtually everything. Quite as the initiates are fond of saying, "The law is a seamless web." Thus, if lay specialist A (the accountant) is to be permitted the privilege of selling advice on ways of circumventing the Internal Revenue Code, there is nothing to prevent specialists B, C, D, E, F, X, Y and Z (the trust officer, the real estate broker, the social worker, *et al.*) from doing likewise, each in the restricted area of his presumed competence. Under those circumstances, what would become of the legal profession? And what, more importantly, would become of the public's protection against charlatans?

Blocking that infringement on their field of activity is just one of the things that lawyers, as a group, are currently interested in. Reports in the daily papers have said that the Iowa bar is about to propose the abolition of justice of the peace courts, in the interests of justice.

There are, of course, other professional groups with which both lawyers and physicians ought logically to cooperate. The dentists in this state, as in others, have taken leading roles in attempting to secure the fluoridation of public water supplies. The Iowa pharmacists have been attempting for years to secure the establishment of state licenses and inspections for drugstores. And the nurses and the veterinarians have taken similarly active roles in support of or in opposition to proposed legislation affecting the public welfare in ways with which they, respectively, were especially concerned.

But, almost inexplicably, there has been only minimal exchange of support between the Medical Society and each of those other professional groups.

It is no more than natural that physicians should think that proposed legislation in which they are professionally concerned should take up the whole of their organized and individual efforts. No doubt the members of all of the other learned professions are similarly convinced. But how much more easily could they accomplish their highly similar objectives if they were to pool their efforts!

So far, doctors have had little success in their attempts to get a medical examiner system as a replacement for the county coroners. The pseudosciences for which virtually uneducated individuals are permitted to qualify continue to gouge gullible people and to interfere with physicians' efforts in behalf of public health. And it is not improbable that sometime soon Medicine will be called upon to defend the Medical Practice Act against a frontal assault.

Thus, the advisability of doctors' making common cause with their fellow professionals is entirely obvious. As a start in that direction, the Iowa State Bar Association and the Iowa State Medical Society have formed a joint committee that is to begin work this month. The new joint committee will attempt to deal, primarily, with medico-legal problems that are involved in physicians' testimony in suits for damages, but there is no apparent reason why it cannot be an instrumentality for interprofessional cooperation in legislative matters.

The editors of the JOURNAL are delighted about the formation of this new group. They hope fervently that it may grow through the inclusion of representatives from the other learned professions. And they urge physicians throughout the state to watch for reports of its work.

HITHERTO UNRECOGNIZED TALENT

As a part of the program at a Christmas party attended by the members of the Board of Trustees and officers of the Iowa State Medical Society and by the office staff, Miss Tina Preftakes, Mrs. Darlene McClanahan and Miss Mary Sloan sang their own parody of the popular song "Thanks for the Memory." Both because it is clever verse and because it is an accurate reflection of the atmosphere in your state headquarters and of the attitudes of its staff, we offer it for your perusal:

Thanks for the memory
Of a brand new coffee pot
That the Trustees finally bought
  We watch it perk
  We never work
But boy, we drink a lot!
Yes, thank you so much.

Thanks for the memory
Of meetings of the Board
When all the Trustees roared:
  "Legal fees!
  The size of these
We surely can't afford!"
How lovely it was!

Thanks for the memory
Of nights we worked so late
We couldn't keep a date
  But we don't mind
  The overtime;
It's just the pay we hate.
Oh, thank you so much.

Of course you know we're only being funny;
We wouldn't give it up for all the world,
For happiness cannot be bought with money—
(The gal who wrote that line must be out of her mind!)

But thanks for the memory.
We really think you're swell.
We hope that you can tell
  We like it here,
  We think you're dear,
Our souls for you we'd sell.
Yes, THANK YOU SO MUCH!

ATTENTION, G-P'S

As emphatically as we can, we want to second the suggestion made by Dr. L. B. Williams in this issue of the JOURNAL that family doctors can benefit one another by utilizing our pages for exchanges of medical ideas.

State society publications such as ours, in contrast to the national research and specialty journals, are in the business of conveying intensely practical information—methodologies and data that are immediately applicable in the day-to-day practice of medicine. In Iowa as elsewhere, every wide-awake doctor who loves his work develops technics of his own, either entirely original procedures or slight improvements upon standard ones. He is proud of them and wants to see them adopted by his physician friends. And since the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY is meant to be his voice, he should undertake to make use of it.

We welcome opportunities to publish descriptions and explanations of sound and significant innovations, whether they are presented individually in papers no more than a few paragraphs long, or whether they are grouped to form miscellanies like Dr. Williams' "Discussion of Several Items of Importance to General Practitioners."

Since we have encountered no dearth of manuscripts and since no one would want us to print just anything that comes to our desks, we cannot give blanket assurance of acceptance. But we should like it understood that we don't insist that our papers bear the names of nationally recognized men, and that if they are really good, we prefer to print papers written by Iowans.

ERYTHROBLASTOSIS

Not so many years ago, the medical schools taught that jaundice within the first week after birth was probably due to birth trauma and that the baby probably would be all right. If on the other hand, the jaundice developed after the first week, we were led to believe that it was due to syphilis and that the outlook was grave. Nowadays, however, we think in terms of the Rh negative mother and the Rh positive father and we anticipate the possibility, after the sensitization of an antibody titre in the mother's blood, that the baby may die either during gestation or soon after birth. Much is yet to be learned about erythroblastosis, but some definite progress has been made in salvaging the unfortunate babies whom it afflicts.

The writer, a family doctor, recently had the very interesting experience of having four mothers consult him, each of whom thought she was Rh negative and each of whom had lost her last one or two babies. In two of the cases the infants had not been autopsied, and the influence of an antibody factor had not been proved. These two cases were referred to the laboratories, and in neither case did any significant antibody titre develop. In both cases there was a negative indirect Coombs test. Both babies, when delivered, were Coombs negative, and all was well.

The third woman had had two severely erythroblastotic babies, and her last previous pregnancy had terminated in the stillbirth of an hydroptic infant. In her case, the laboratory tests were suggestive that the present pregnancy would terminate disastrously. Since she was at about the thirty-ninth week of gestation and the baby seemed to be of satisfactory size, an induction was done, with the approval and cooperation of a pediatrician. A live baby of nearly six pounds was delivered. It was Coombs positive, but an early exchange transfusion was done and the baby left the hospital on the sixth day with the mother. In that case there was a twin who had succumbed several weeks earlier, in utero. How much the erythroblastotic factor had had to do with that fetal death, the autopsy failed to reveal, but it seems probable that it had been influential.

The fourth woman had had four previous pregnancies. In the first, the baby was normal. The second had been saved by transfusion and medical management. In both the third and the fourth pregnancies, the patient had reached about the end of the eighth month, had had what seemed a threatened labor which stopped short of delivery, and some weeks later had delivered a stillborn, hydroptic baby. In the present instance, her indirect coombs test result was positive, and her antibody titre was up. The husband was undoubtedly homozygous. Induction was considered, but was delayed because the baby seemed very small and would undoubtedly be a problem for exchange transfusion and mangement. However, the membranes ruptured, and uterine contractions began. After some hours, the labor pains ceased, and remembering the outcome in the last two of her pregnancies, we gave intravenous Pitocin to reinstate the contractions. A live baby of about five pounds was born by the normal route. Exchange transfusion was done without untoward incident, later a smaller transfusion was carried out, and the baby left the hospital weighing about 5.5 lbs.

These four cases coming virtually simultaneously in the practice of a physician who does not do a great amount of obstetrics, together with their almost uniformly happy outcomes, constituted a most interesting and enjoyable experience.

Attend the Annual Meeting of the Iowa State Medical Society, April 22-25, 1956, in Des Moines.



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VOCATIONAL REHAB ACCOMPLISHMENTS*

The Biennial Report of the Division of Vocational Rehabilitation, Department of Public Instruction, State of Iowa, reveals some very desirable accomplishments. Vocational Rehabilitation is a Public Service to prepare disabled persons for employment suitable to their talents and capabilities and to place them in jobs. Service is provided any resident of Iowa of working age who has a substantial job handicap because of physical or mental impairment and who has a reasonable chance of becoming employable.

Four thousand two hundred ten (4,210) new cases were referred during the fiscal years of 1953 and 1954. Of these, 30 per cent were referred by welfare agencies, 18 per cent by health agencies, 14 per cent by educational institutions, 11 per cent by other governmental agencies, one per cent by the insurance industry and 26 per cent from miscellaneous sources.

Physical restoration services may be provided at the expense of the Division when competent medical advice indicates that it is possible to remove or substantially reduce a job handicap when the disabled person is financially unable to obtain such necessary services. Disabled persons from every county have benefited. During the two years 607 Polk County residents were served by the Division. The total number receiving service was 3,915, of which 1,545 were placed in gainful employment.

Persons aged from 16 to more than 61 were rehabilitated. The greatest numbers of people restored were in the age groups 16-20, 503 and 21-30, 358. Most of the disabilities, 764, were of an orthopedic nature, 173 were hearing defects, 141 were former tuberculosis patients, 127 cardiac patients, 105 mental, 56 visual (not blind), 44 epileptic, 40 diabetic, 14 speech, 14 hernia and 64 other diseases. There were 1,051 males rehabilitated, 494 females; or a total of 1,545 persons.

Eighty-three per cent of these 1,545 rehabilitated persons were unemployed at the time they were accepted for rehabilitation services. One out of four had never worked, and 248 were in wage-earning jobs which were unsuitable, temporary or unsafe. About one-half were dependent upon their families for support; one out of every nine was on public relief. Nearly one-third were married, and more than one-third had more than one dependent to support.

Twenty-six per cent of rehabilitated workers were employed in clerical and sales jobs; 15.1 per cent in service occupations; 14.8 per cent in semi-skilled jobs; 13.7 per cent in skilled vocations; 11.4 per cent in professional and managerial positions; 11.3 per cent in unskilled work; and 7.6 per cent in agriculture.

Grand total expenditures for the two year period were $866,404.95 including $296,763.83 of Federal funds used in total administrative, guidance and placement costs and a portion of case service.

* Reprinted from the BULLETIN OF THE POLK COUNTY MEDICAL SOCIETY 26:210-211, (Dec.) 1955.

AMERICAN HEART ASSOCIATION REACHES MATURITY

The annual meeting of the American Heart Association, held in New Orleans in October, 1955, was the group's first independent meeting. Previously it had held its meetings just prior to those of the AMA or, in later years, those of the American College of Physicians. A ballot was taken in New Orleans, by which it was decided that sessions should henceforth be held independently in October of each year.

The registration for the New Orleans sessions was 1,941, as contrasted with 1,916 at Chicago in 1954, and 1,352 at Atlantic City in 1953. Thus, holding meetings apart from older and larger organizations did not reduce attendance.

In 1924, when the American Heart Association was incorporated, its estimated active membership was 50. It was then exclusively a scientific organization, and it was not until 1947 that it was organized as a national health agency and was opened to lay members as well as doctors. The present membership totals more than 25,000. The Iowa Heart Association was organized in 1949 and now has 534 members.

The New Orleans scientific program was a Mecca for the research minded and a fountain of innumerable suggestions for the clinician. Dr. Paul D. White's talk on rehabilitation in heart disease offered an encouraging prognosis in most heart cases.

Mitral commissurotomy is now a proved procedure. The surgical treatment of mitral insufficiency by circumferential suture of the mitral ring—a purse-string suture—is much more complicated, but is now being attempted. Cardiopericardiomyopexy seems to have proved its value in many cases.

The use of serum transaminase determination as a diagnostic agent seems of value in cases of uncertain myocardial infarction, and it is also useful in determining the extent of the infarction. Intravenous ganglionic blocking agents are being used with apparent success in acute pulmonary edema.

It was noted in one of the lectures delivered at the meeting that cholecystectomy is relatively safe for patients who have recovered from an acute coronary. It also has been noted that the old coronary case usually does well if other necessary surgery is done later, particularly prostate surgery or laparotomies.

A group from the University of Iowa presented a detailed study on the value of Rauwolfia serpentina in the treatment of coronary disease. A clinical study of the anginal syndrome with an analysis of methods for accurate evaluation of therapy was also presented.

District Judge C. Edwin Moore's

Decree in the Hospital-Physician Trial

IN THE DISTRICT COURT OF THE STATE OF IOWA IN AND FOR POLK COUNTY

No. 63095 Equity

Iowa Hospital Association, a corporation, *et al.*
Plaintiffs

Iowa Board of Medical Examiners, *et al.*
Defendants

Iowa State Medical Society
Intervenor

Now, on this 7th day of December, 1955, the above cause comes on for final judgment and decree, the Court having on November 28, 1955 filed Findings of Fact and Conclusions of Law appearing in Journal 263 at page 74 in the office of the Clerk of this Court.

The Plaintiffs appear as to their Petition as twice amended and in resistence to the counterclaims of the Defendants and of the Petition of Intervention of the Intervenor by Herrick, Langdon and Sidney of Des Moines, Iowa and O. W. Harris of Jefferson, Iowa. The Defendants Iowa State Board of Medical Examiners and George H. Scanlon, M.D., Frank R. Peterson, M.D., R. F. Birge, M.D., H. E. Farnsworth, M.D. and John W. Billingsley, M.D., Members of the Iowa State Board of Medical Examiners, and Dayton Countryman, Attorney General of the State of Iowa by Dayton Countryman, Attorney General of the State of Iowa, Clarence A. Kading, Assistant Attorney General of the State of Iowa and Philip H. Cless, Special Assistant Attorney General of the State of Iowa, and the Defendants Iowa Association of Pathologists, Frank C. Coleman, M.D., President and R. F. Birge, M.D., Secretary by their attorneys Lehmann, Hurlburt, Blanchard & Cless of Des Moines, Iowa and the Intervenor Iowa State Medical Society by its attorneys Lehmann, Hurlburt, Blanchard & Cless of Des Moines, Iowa. All Defendants appear in resistance to the Petition of the Plaintiffs as twice amended and said Defendants appear also in the assertion of counterclaims against the Plaintiffs joined in by Petition of Intervention of the Intervenor Iowa State Medical Society.

In addition to the Findings and Conclusions heretofore referred to, the Court finds that the subject matter of this cause, both as to the Petition of the Plaintiffs as twice amended and of the counterclaims of the Defendants and the Petition of Intervention of the Intervenor, are proper subjects for declaratory relief as provided in Rules 261 to 269 of Civil Procedure, both inclusive, and that said pleadings present justiciable controversies and that the Court has the jurisdiction, power and right to make the declarations sought therein or to refuse same.

Having on November 28, 1955 filed written Findings of Fact and Conclusions of Law appearing in Journal 263 commencing at page 74 thereof, in the office of the Clerk of this Court, the Court does hereby adopt, reassert and restate said Findings of Fact and Conclusions of Law with the same force and effect as though set out herein at length.

The equities being with the Defendants and Intervenor as to both the Petition and counterclaims, the Court proceeds to enter judgment and decree consistent with the Findings of Fact and Conclusions of Law.

Now, Therefore, It Is Hereby Ordered, Adjudged and Decreed as follows:

1. That the Court does hereby refuse each and every one of the declarations sought by the Plaintiffs in their Petition as twice amended, and said Petition is hereby dismissed and judgment of dismissal is hereby entered.

2. As to the counterclaims and the Petition of Intervention, the Court declares that Plaintiffs, be they corporations or individuals serving as trustees for County hospitals under the provisions of Chapter 347 of the Code or of Municipal hospitals under the provisions of Chapter 380 of the Code, in conducting and operating hospital pathology laboratories as found in the Court's Findings of Fact, are selling to the public, as pathology laboratory services, medical services performed and furnished in the diagnosis and treatment of human injury and disease including the services of the pathologist himself, if there be one, and as such are engaged in the unauthorized, unlicensed and illegal practice of medicine.

3. As to the counterclaims and the Petition of Intervention, the Court declares that Plaintiffs, be they corporations or individuals serving as trustees for County hospitals under the provisions of Chapter 347 of the Code or of Municipal hospitals under the provisions of Chapter 380 of the Code, in conducting and operating hospital X-ray departments as found in the Court's Findings of Fact, are selling to the public, as X-ray services, medical services performed and furnished in the diagnosis and treatment of human injury and disease including the services of the radiologist himself, if there be one, and as such are engaged in the unauthorized, unlicensed and illegal practice of medicine. This declaration is not applicable to Evangelical Hospital, Marshalltown, Iowa.

4. The pathologist or radiologist, by permitting a hospital to bill for medical services in the name of the hospital without the consent of the patient

or his legal representative, violates the provisions of Subsection 4 of Section 147.56 of the Code.

5. Each and every Conclusion of Law made and filed under date of November 28, 1955 and appearing in Journal 263 commencing at page 74 thereof, in the office of the Clerk of this Court is hereby made a separate declaration under said counterclaims and Petition of Intervention with the same force and effect as though set out at length.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that pursuant to Rule 266 of Civil Procedure this Court does hereby retain jurisdiction of this cause for the granting of relief supplemental to the declarations herein made wherever necessary or proper.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that the Clerk enter judgment against the Plaintiffs for the costs of this action.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that the attorneys on each side shall provide the others with a descriptive, chronological list of their exhibits and shall file a copy of such list with the Clerk as a receipt for such exhibits and shall become the custodian thereof. The attorneys shall accommodate each other in the examination and inspection of such exhibits.

(signed) C. EDWIN MOORE, *Judge*

HIGHLIGHTS OF THE INTERIM SESSION OF THE AMA AT BOSTON

Delivering the keynote address before the public-relations conference that preceded the 1955 Interim Session of the AMA in Boston, Dr. Dwight Murray, president-elect of the Association, urged physicians to develop their P-R programs for 1956 in the spirit of neighborliness. It is time, he said, for physicians to learn to show interest in their neighbors in their respective communities. It is their responsibility, individually and collectively to seek out and ally themselves with the other groups that are interested in the public welfare. "No one," he declared, "is going to give a hoot in hades about the problems of the medical profession if we sit on our pedestals waiting for others to come to us."

In his mid-year address to the House of Delegates, Dr. Elmer Hess, president of the AMA, expressed the opinion that complacency is the greatest enemy of the medical profession. He said that even though good progress is being made in informing the public and the profession of the objectives of Medicine, educational efforts must be intensified, and the list of physicians' tangible accomplishments in public health must be lengthened.

Dr. Hess said he believes that before doctors can successfuly achieve the objectives that they have proclaimed to the public, they must solve some of the problems affecting relationships within the field of medicine. He had reference to hospital-physician relations and to the private practice of medicine by the faculties of medical schools. "Also," he said, "I think that one of our greatest internal problems is a reluctance to recognize that we are not cast from a perfect mold."

Mr. V. C. Royster, senior associate editor of the WALL STREET JOURNAL, told the conference that doctors should reacquire a sense of *noblesse oblige*. The public, he said, thinks that the medical profession still clings to all its traditional privileges but isn't willing to live up to all of its obligations. Pointing out that the essence of good public relations is conduct which the public thinks is right, he declared that the men who strike real blows for freedom in medicine are those who act as physicians first and as businessmen second. He warned that if the practice of medicine becomes an assembly-line process and if the true doctor-patient relationship is lost, medicine will have forfeited one of its strongest arguments against encroachment by the federal government upon the practice of medicine.

HOUSE OF DELEGATES

The 37 resolutions on which the House of Delegates was asked to act concerned a variety of subjects including social security, hospital staff status of general practitioners, public relations and medical ethics. All of them were referred to reference committees on Wednesday, and representatives of the ISMS attended each of the committee meetings. The ISMS was honored by the appointment of Dr. Donovan F. Ward, of Dubuque, to the membership of the Reference Committee on Reports of Officers.

A highlight of the meeting, as far as Iowa is concerned, was the reaction of the House of Delegates to the news, received shortly before the House convened on Tuesday morning, that a favorable decision had been rendered in the lawsuit brought by the Iowa Hospital Association against the Iowa Board of Medical Examiners, *et al.* The delegates' interest in the matter and their enthusiasm over the success with which the ISMS had presented the position of American Medicine in the lawsuit were evidenced by the immediate and unanimous passage of a congratulatory resolution and by the sentiments that individual ones of them expressed.

The House of Delegates established its policy relative to H.R. 7225, known as the Social Security Amendments of 1955, when it approved the following statement:

"[Resolved:] That the American Medical Association reiterate in the strongest possible terms its determination to resist any encroachment upon the American system of medical practice which would be detrimental to our patients, the American people;

"That the American Medical Association urge and support the creation of a well-qualified commission, either governmental or private or both, to make a thorough, objective and impartial study of the economic, social and political impact of Social Security, both medical and otherwise, and that the facts developed by such a study should be the sole basis for objective non-political improvements to the Social Se-

curity Act, for the benefit of all of the American people;

"That the American Medical Association pledges its wholehearted cooperation in such a study of Social Security in the United States, and will devote its best efforts to procuring and providing full information on the medical aspects of disability, rehabilitation and medical care of the disabled, and

"That copies of this resolution be transmitted to the President of the United States, to all members of the Cabinet, to all members of the Congress, and to all constituent state medical associations."

This bill, passed last summer by the U. S. House of Representatives, is pending before the Senate Finance Committee. The two parts of the bill (H.R. 7225) to which the AMA objects would (1) provide OASI benefits for totally and permanently disabled persons beyond the age of 18 years, and (2) provide OASI retirement benefits for the disabled at age 50.

The House of Delegates passed a resolution requesting the state societies to ascertain the exact attitude of their physician members toward compulsory or voluntary coverage of doctors under the Social Security system.*

The House of Delegates rejected a resolution introduced by the Texas delegation requesting the AMA to oppose S. 1323, a bill to authorize a five-year program of federal grants to be disbursed on a matching basis for construction of medical education and research facilities. It was pointed out that in June, 1951, the House of Delegates had asked for a one-time federal grant, on a matching basis, for construction, equipping and renovating the physical plants of medical schools, and that adoption of the Texas resolution would constitute reversal of policy.

The House approved a resolution intended to implement the findings and recommendations of the Committee on Medical Practices (Truman Committee). Points covered in the resolution are as follows, but are subject to review by the legal counsel of the AMA:

"[Resolved:] That a continuing Committee on Medical Practice be created in the American Medical Association to conduct a study of the relative value of diagnostic, medical and surgical services and to report its findings and recommendations to this House in the same manner as is followed by other committees and councils of the Association;

"That this committee shall consist of five members of the House appointed by the Speaker, three of whom shall be general practitioners; . . .

"That this committee be directed to utilize all possible means to stimulate the formation of a department of general practice in each medical school;

"That the American Medical Association approve of the medical school teaching programs which afford the medical student opportunity for experience in the general practice of medicine;

"That the representatives of the American Medical Association on the Joint Commission on Accreditation of Hospitals be instructed to stimulate action by that body leading to the warning, provisional accreditation or removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class regardless of their individual professional competence, after appeal to the Commission by the County Medical Society concerned;

"That this committee cooperate in every way and

* In October, 1954, the Legislative Committee of the ISMS requested opinions of Iowa doctors relative to the inclusion of physicians under Social Security. The results showed that 647 favored voluntary participation; 265 no participation even on a voluntary basis; 60 participation on a compulsory basis; and 605 opposed to compulsory participation. In that poll, which concerned legislation in general, 965 of the 2,360 ISMS members replied.



Drs. Gordon Harkness, of Davenport, Robert N. Larimer, of Sioux City, F C. Coleman, of Des Moines, and Donovan F. Ward, of Dubuque, Iowa's members of the AMA House of Delegates, were photographed at one of the sessions of the Interim Meeting in Boston.

assist the Public Relations Department of the American Medical Association to present a program of public education designed to bring about a better understanding of all fields of medical practice, and

"That this committee use its full influence to discourage any arbitrary restrictions by hospitals against general practitioners as a group or as individuals."

The House also approved a plan whereby all resolutions dealing with changes in the principles of medical ethics shall be considered in the period between sessions of the House of Delegates before final adoption.

Among the miscellaneous actions of the House of Delegates were (1) consideration of an increase in AMA dues specifically for the support of the American Medical Education Foundation; (2) a declaration in opposition to "the division of any branch of medical practice into so-called technical and professional services"; (3) a recommendation that further purchase and distribution of Salk vaccine be carried out through the usual commercial channels; (4) approval of the appointing of an AMA committee to study the prevention of highway accidents; (5) commendation of the Woman's Auxiliary for its financial contributions in support of medical education; (6) receipt of progress reports from the Commission on Medical Care Plans and from the AMA Law Department on its studies of professional liability; (7) commendation of the Sears Roebuck Foundation for its sponsorship of medical practice units; (8) approval of the separation of the State Journal Advertising Bureau from the AMA; and (9) approval of Minneapolis as the site of the 1958 Clinical Meeting and of Chicago as the site of the 1960 Annual Meeting.

MENTAL ILLNESS

HYPOCHONDRIASIS

A patient frequently met with in general practice is the hypochondriac. He complains at length about bodily discomfort and is excessively concerned with his bodily functions. But careful physical examination and exhaustive laboratory studies, when done and repeated, are "essentially negative" or "within normal limits."

Hypochrondriasis is a symptom of emotional disease and may occur in a number of psychiatric syndromes. To be able to recognize the syndrome is important from the standpoint of prognosis and treatment. In general, a person whose complaints are primarily somatic has much difficulty in recognizing psychogenic causes. He is unable to deal consciously with unacceptable emotions. He cannot or will not acknowledge inter-or intra-personal conflicts, and instead will go from doctor to doctor hoping to find something "organically" wrong. He may present a history of several surgical procedures with no more than temporary relief of symptoms or none at all. Drugs of various kinds given by all routes yield similarly disappointing results.

The neurotic hypochondriac is a person whose first love is his internal organs. Other emotional attachments seem lacking. He may be effective and successful in business, but at a loss without his enema syringe. All his needs for affection, acceptance, dependency gratification and security are focused in his viscera. In males, such complaints are usually centered about the stomach, bowels and heart; in females, about the pelvic organs. Some patients whose symptoms are more transparently related to anxiey will complain of dyspnea, tachycardia, light-headedness, headache, backache or chest pains. This latter group will respond to relaxing agents or to the newer ataraxic drugs (chlorpromazine, reserpine).

Less commonly encountered are the more patently hysterical or conversion symptoms. These may be found in the form of pain, anesthesias, paralyses, aphonia, loss of special senses, or seizures. The patient should be made aware that a relationship exists between psychic conflict and bodily discomfort. To alleviate symptoms, the patient must come to deal with his emotions at a conscious level and see how physical symptoms are used to solve unconscious conflict. Repeated examination and surgery serve only to fix symptoms.

Hypochondriasis in depression is common, particularly in the involutionary group. The complaints may vary from simple constipation to delusions of absence of the stomach and intestines. Other symptoms may be dry mouth, poor vision, fear of cancer and syphilis, impotence, suppuration of the uterus and drying of the brain. Of course the more bizarre the symptom, the more likely it is that the physician will think of looking for a psychiatric disorder. Unfortunately, depressed patients do not always volunteer feelings of depression, nor are the physical complaints always dramatic or florid. When the depression is appropriately treated, the somatic complaints will clear.

Patients suffering from schizophrenia or some other illness with a paranoid element may present hypochondriacal symptoms. These are usually bizarre in nature, or are attributed to strange causes. For example, the patient may complain of a snapping or grinding sensation in his head which he says is caused by a ray machine in his neighbor's house. The symptom of which he complains may be either simple or multiple. And he will cling tenaciously to his inconsistent and illogical account of his woes in spite of reexaminations and assurances. Unfortunately, the usual cardinal signs of schizophrenia, such as disturbance in thinking or feeling, may be overlooked as the physician focuses his attention on the physical complaint. Relief of symptoms will involve treatment of the psychotic process, and psychiatric advice should be obtained.

President's Page

We are pleased that we can begin the new year with Judge C. Edwin Moore's well-defined decision on record in Polk County District Court that it is illegal for hospitals to practice medicine by employing physicians and selling their services. We understand that the Iowa Hospital Association, which filed the original petition for declaratory judgment, will appeal his decision to the Supreme Court of Iowa.

The Iowa State Medical Society from the beginning of this controversy believed that the problem of hospital-physician relations could be solved by negotiations between the interested parties, and urged local settlement following the Attorney General's opinion issued February 19, 1954.

The Medical Society still believes that the hospitals and doctors can comply with Judge Moore's ruling and that there will be absolutely no adverse affects for the public. We are certain of two points —that there will *not* be an increase, but probably a decrease, in the cost of the special medical services primarily involved in this lawsuit, and there will be an improvement in the quality of care.

We shall continue to maintain that the Medical Practice Act, in its present form and as it has been interpreted by Iowa's Attorney General and upheld by the court, protects the best interests of all parties involved—the hospitals, the doctors, and most important, the patients.



President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

YEAR BOOK OF OBSTETRICS AND GYNECOLOGY (1955-1956 Year Book Series), ed. by *J. P. Greenhill*, M.D. (Chicago, The Year Book Publishers, Inc., 1955. $6.00).

HAND SURGERY IN WORLD WAR II (The Medical Department of the United States Army), ed. by *Sterling Bunnell*, M.D. (Washington, D.C., Office of the Surgeon General, Department of the Army, 1955. $3.75).

HYPNOTIC SUGGESTION: ITS ROLE IN PSYCHONEUROTIC AND PSYCHOSOMATIC DISORDERS, by *S. J. VanPelt*, M.B., B.S. (New York, The Philosophical Library, Inc., 1956. $2.75).

THE YEAR BOOK OF PEDIATRICS (1955-1956 Year Book Series), ed. by *Sydney S. Gellis*, M.D. (Chicago, The Year Book Publishers, Inc., 1955. $6.00).

BOOK REVIEWS

DIFFERENTIAL DIAGNOSIS: THE INTERPRETATION OF CLINICAL EVIDENCE, by *A. McGehee Harvey*, M.D., and *James Bordley, III*, M.D. (Philadelphia, W. B. Saunders Co., 1955. $11.00)

By utilizing some 90 well-chosen cases from clinical pathologic conferences at Johns Hopkins University Medical School, the authors have made interesting presentations of unique and sound approaches to diagnostic principles employed in the everyday practice of medicine. They reemphasize the necessity for systematized mental discipline and unprejudiced analysis of facts in the establishment of a diagnosis.

The clinical entities presented for discussion are ones that involve many facets of medicine and require the exercise of keen discernment and judgment. The illustrative cases, presented with as much brevity as is permissable in a good CPC protocol, have been well selected, and they enhance the value of the book very considerably.

For physicians who take special delight in solving for medical unknowns, approximately 11 concise case histories are presented as diagnostic problems. The corresponding pathologic diagnoses have been placed elsewhere in the volume.

Rather than being a textbook in clinical medicine, the book is a means of reemphasizing the need for diligent evaluation of facts in the establishment of an accurate diagnosis. It should be a valuable addition to any physician's library.—*John K. Uchiyama*, M.D.

SURGERY OF THE AMBULATORY PATIENT, by *L. K. Ferguson*, M.D., Third Edition. (Philadelphia, J. P. Lippincott Company, 1955. $12.00)

The third edition of Dr. Ferguson's book contains many additions, particularly in the material on anesthesia and on antibiotic therapy. As was true of its predecessor, it appears that the new edition will be most useful to general practitioners who perform minor surgery.

A number of safeguards are emphasized, and the therapeutics of many of the minor but confusing surgical conditions encountered in everyday practice are very painstakingly covered. The surgical specialist in general practice undoubtedly will find that the book contains many useful concepts, and even the internist or pediatrician who occasionally undertakes minor surgery probably would profit from having a copy of it available to him.—*R. E. Paul*, M.D.

MANAGEMENT OF ADDICTIONS, by *Edward Podolsky*, M.D. (New York, The Philosophical Library, 1955. $7.50)

The book consists of a series of articles or discussions concerning addiction to alcohol and various drugs that have been written by leading authorities in the field and have been edited by Dr. Podolsky. By *addiction* is meant slavish devotion, either physical or psychological or both. Approximately three fourth of the volume is devoted to alcoholism, the last quarter having to do with narcotic addiction.

The medical profession today is giving more thought than ever before to the causes of addiction, and also to the therapeutic measures by which it can be controlled. The discussions approach the alcohol problem from many directions, including psychodynamics, therapeutic successes, nutrition, team work in treatment and hypnotherapy. The question of hospitalization versus ambulatory care is also taken up.

Drug addiction is approached from the standpoint of group psychotherapy, the study of results of treatment, various forms of treatment, and the problem of narcotic drug addiction.

This book is of value to all physicians who handle alcoholics or drug addicts. And it is also of interest to psychologists, sociologists and many others who come into contact with the problems of alcoholism and drug addiction.—*Herbert C. Merillat*, M.D.

FLUID THERAPY, by *James D. Hardy*, M.D. (Philadelphia, Lea & Febiger, 1955. $5.50)

This book by Dr. Hardy joins the ever increasing group of authoritative works on fluid therapy. Not only are the elements of physiology of body fluid metabolism covered in a comprehensive manner, but also the important points on diagnosis of fluid imbalance and specific treatment are outlined. The classification of states of water and electrolyte imbalance is not so complicated but that the average practitioner can readily assimilate and utilize it.

Although not so complete as some of the more involved texts on the subject, the book is so concise that

the digestion of its contents gives one a good working knowledge of the subject.—*R. E. Paul,* M.D.

Office Procedures, by *Paul Williams,* M.D. (Philadelphia, W. B. Saunders Co., 1955. $12.50)

This volume is a large sized one, containing over 400 pages. Type is of easily readable size, and the pages are liberally sprinkled with illustrations. And it is worth mentioning that those illustrations, unlike the ones in many other books, are described in the immediately adjacent text material.

The contents are arranged both by anatomical and by specialty divisions, and each chapter has an abbreviated table of contents on its front page which adds greatly in the rapid location of desired information and associated material. The data are well presented, with the result that the busy doctor will be able to find what he wants and to peruse it quickly.

The book is likely to be most useful as a reference, and it is probable that the general practitioner will gain most from it, since he, rather than the specialist, uses each of a considerable variety of complex procedures no more than occasionally. The majority of procedures and diagnostic tests that he can use effectively in his office are well explained.

I feel that as a ready reference and as a text, this book would be an excellent addition to a physician's library.—*Charles Bean,* M.D.

The Practice of Dynamic Psychiatry, by *Jules H. Masserman,* M.D. (Philadelphia, W. B. Saunders Co., 1955. $12.00)

In a previous text, principles of dynamic psychiatry, Dr. Masserman presented a system that he designated "biodynamic," which attempted to correlate the physiology and the psychology of behavior. In this second book, he deals with the practical applications of biodynamics, and in so doing he makes a major contribution to psychiatric literature.

Part One deals with the rationale, the objectives and the methods of the psychiatric interview, the technics for estimating special capacities and defects, and the symptoms and signs of mental change. Dr. Masserman emphasizes that psychiatric diagnosis should be an appraisal of the patient's problems in relation to his endowments, his formative experiences, his physical and social stresses, his motivations, his values and his patterns. Part Two concerns the dynamic evaluation of clinical syndromes. Though he uses the standard nomenclature for nervous and mental diseases (the 1952 revision), he warns against offhand categorization of cases. Diagnostic emphasis, he says, must be put upon the origin, form, interrelationship and relative strength of each behavioral tendency manifested by the patient.

Part Three is entitled "Case Studies and Communications." Here he discusses hospital records and methods of reporting to various referral agencies and to both medical and non-medical personnel, giving illustrations of the terminology that can best be used in describing etiology, diagnosis and prognosis in reports to each of those various types of recipients.

Part Four, entitled "Clinical Dynamics of Affect and Self," deals with the concepts of affect, self and cosmos.

Part Five, "The Practice of Dynamic Psychiatry," is devoted to clinical therapy and is the major portion of the work. Dr. Masserman discusses psychoanalysis on the basis of experimental, medical and social data. He reviews the various stages in the development of psychotherapy; he outlines the principles and practices in the various forms of familial and group therapy; and he takes up the psychiatrist's functions and his relationship to the patient, to the family and to the community. Then he discusses therapeutic technics and the methods of approach to therapy. The final subsection concerns biodynamics and social issues.

The five appendixes contain (1) a condensed outline of the psychiatric examination, (2) the standard nomenclature of mental disorders, (3) supplementary data on alcoholism, (4) the training of the psychiatrist and (5) mental hygiene. A 47-page bibliography concludes the volume.

This is a textbook which will be of value to the student and to the established psychiatrist, but of little value to the general physician.—*Herbert C. Merillat,* M.D.

Advances in Internal Medicine, Vol. VII, ed. by *William Dock,* M.D., and *I. Snapper,* M.D. (Chicago, The Year Book Publishers, Inc., 1955. $8.50)

The seventh volume of advances in internal medicine follows the pattern of its predecessors. It incorporates eight articles on miscellaneous subjects, the authors being well known authorities in their individual fields, such as David Dreiling, Victor McKusick and John B. Squire. The articles this year are heavily weighted toward the basic sciences. They deal with the clinical significance of serum mucoproteins, applied pulmonary physiology, the pathophysiology of the pancreas, renal lithiasis, diseases of the pericardium, hepatic coma and the nephrotic syndrome. Each article is extensively documented by references to the literature.

The quality of each article is excellent. The authors have all had extensive experience in the field, and they write with an authority which we all welcome. But the reading is not easy, because of the deep penetration into theoretical and basic science material. One must really be ready to concentrate when he takes up this volume. One gets the feeling, however, that the medicine of tomorrow lies in such deep, fundamental approaches as are herein represented. We should sweep the cobwebs from our brains and tackle such volumes as this, for there is no chaff in such pages.—*Daniel A. Glomset,* M.D.

Members of the Society
who should like to display
SCIENTIFIC EXHIBITS
at the Annual Meeting in Des Moines, April 22-25, are invited to write or phone to the Headquarters Office.

COUNTY SOCIETIES

Buena Vista

The Buena Vista County Medical Society is sponsoring a series of 13 weekly radio broadcasts over Station KAYL which started on Thursday, December 8. The programs, comprising a series entitled "Medicine Fights the Killer," are recordings prepared under the supervision of the AMA.

Calhoun

Dr. Clare E. Knouf, of Lake City, was elected president of the Calhoun County Medical Society at the December meeting, held in Manson. Dr. Denes Farago, of Lake City, was chosen vice-president; Dr. Donald Ortmeyer, of Manson, secretary-treasurer; Dr. Paul Ferguson, of Lake City, delegate to the Iowa State Medical Society; and Dr. J. H. Faust, of Manson, alternate delegate.

Clinton

Dr. Kurt Jaenicke was presented a gold watch by the Clinton County Medical Society, at its meeting on November 12, in recognition of his having been a member of the group for 50 years. Although he is 72, Dr. Jaenicke still has an active practice. He is a Life Member of the Iowa State Medical Society. Dr. Ralph S. Luce made the presentation.

The speaker of the evening was Mr. Ralph Olson, an Ellsworth farmer who was a member of the party of Iowans who toured Russia last summer.

Des Moines

Dr. Robert S. Bell was elected president of the Des Moines County Medical Society at a dinner and business meeting held at the Burlington Golf Club on December 13. Dr. H. N. McMurray was chosen vice-president; Dr. Jesse L. Saar, secretary; and Dr. J. H. Murray, treasurer.

Johnson

Members of the faculty of the SUI College of Law presented a program on examination of the expert medical witness at the December 7 meeting of the Johnson County Medical Society.

Linn

Dr. W. B. Bean, head of the Department of Internal Medicine at the SUI College of Medicine, was guest speaker at the December 8 meeting of the Linn County Medical Society. The wives of the members were guests of the Society at the dinner which preceded Dr. Bean's address.

Dr. Ralph E. Dolkart, assistant professor of medicine at Northwestern University, will address the Linn County Medical Society at the Montrose Hotel, Cedar Rapids, January 12, 1956, on "Newer Concepts in the Use of Adrenal Steroids."

Marshall

Dr. E. C. Knight was elected president of the Marshall County Medical Society at a recent meeting. Dr. C. R. Sokol was elected vice-president, and Dr. H. E. Sauer was chosen secretary-treasurer. Dr. D. Dale Harris is to be delegate to the Iowa State Medical Society, and Dr. L. O. Goodman, alternate. Dr. Sokol practices at State Center, and the others of them at Marshalltown.

Vascular surgery was the topic for the scientific portion of that meeting, and the speaker was Dr. R. E. Taber, associate professor of surgery at SUI.

Polk

At the annual meeting of the Polk County Medical Society, to be held at the Des Moines Golf and Country Club on January 18, the speaker is to be Dr. James P. Cooney, brigadier general and deputy surgeon general of the U. S. Army.

Pottawattamie

The Pottawattamie County Board of Supervisors, on December 12, took under advisement the request for a new contract increasing some fees for general medical treatment in county welfare cases. The proposal had been presented by a three-man committee representing the County Medical Society, with a plea for a decision no later than January 10.

Following is a comparison of the present and proposed fees:

Office calls: Old rate, first call $3 and subsequent calls $2; new rate, first call $4 and subsequent calls $3.

Hospital calls: Old rate, first call $3 and subsequent calls $2; new rate, first call $4 and subsequent calls $3.

House calls: Old rate, first call $4, subsequent calls $3 and night calls $5; new rate, all daytime calls $4; night calls $5.

Wright

Dr. J. R. Christiansen, of Eagle Grove, who retired recently, has vacated the office of secretary-treasurer of the Wright County Medical Society, a post he has occupied since 1931. The 1956 officers chosen at the annual meeting held on December 1 are Dr. B. L. Basinger, of Goldfield, president; Dr. C. A. Aageson, of Dows, vice-president; and Dr. R. F. McCool, of Clarion, secretary-treasurer.

DEATHS

Dr. Dell L. Grothaus, 67, who had practiced in Delta for 39 years, died at his home there on November 27. Following a previous heart attack seven years ago, he had practiced no more than limitedly.

Dr. Raymond E. Peck, 77, who served Davenport for half a century, died on November 26 at St. Luke's Hospital there. He had been in the hospital since suffering a stroke on November 8. For 11 years a member of the faculty of the SUI College of Medicine, Dr. Peck subsequently was a prominent private practitioner, a president of the Scott County and Iowa-Illinois Central District Medical Societies, and a vice-president of the Iowa State Medical Society.

Dr. Martin J. Joynt, 77, an eye, ear, nose and throat specialist at Le Mars since 1915, died there on December 7, a month after suffering a heart attack.

Dr. Edward M. Myers, 83, a former president (1937-8) and a Life Member of the Iowa State Medical Society, died at the Boone County Hospital on December 11 after a lengthy illness. He practiced surgery in Boone from 1902 until 1941; he was superintendent of the State Hospital and School at Woodward until 1952; and has lived in retirement at Boone since then. From 1934 until 1949 he was a member of the Iowa State Board of Health.

OSTEOPATHS SEEK POLK COUNTY ASSIGNMENT

Chairman B. E. Newell has said that the Polk County Board of Supervisors are duty bound to consider a proposal by Still College of Osteopathy to provide the Polk County Home with two senior students constantly and two visits by an osteopathic physician daily for the same fee ($2,200 per year) that the Board has been paying an M.D. for twice-weekly visits and "on-call" service. Newell conceded that the Board has had no complaints about the present service.

Daniel W. Coughlan, M.D., clinical director of Broadlawns Polk County Hospital, Des Moines, told the Board of Supervisors, "If you're going to have 24-hour care, you're going to have to set up hospital-type facilities. Broadlawns Hospital provides excellent facilities and medical care of the general patient and psychiatric services and is developing additional facilities for psychiatric care and for those suffering from long-term illnesses."

Dr. Coughlan went on to say, "The Council of Social Agencies has an active study committee working on this over-all problem. The Polk County Medical Society has active committees which for several years have been studying problems of the care of the mentally and the chronically ill. We hope that the Board will await results of the present studies."

Newell said the County Home now has about 350 inmates, including 48 bed patients, 220 mental cases and 92 indigents.

CLOSED CIRCUIT TV AT SUI

The State University of Iowa has recently purchased a TV camera, two viewers and a remote control panel for use in giving each individual in large groups of students a "ringside seat" at professors' demonstrations. Perhaps most frequently, the equipment will be employed in teaching surgery and dentistry. As yet, the school does not have apparatus for transmission in color.

The United States Army and Navy pioneered in television instruction shortly after the close of World War II, and more recently it has been employed at major medical meetings. Nowadays it is becoming part of the instructional equipment even in high schools. One that is being planned at Vancouver, Washington, is to have a receiver in each of its 30 classrooms.

The first use of the SUI apparatus, early in November, enabled a group of 200 high school students to watch a sixth-grade class as it was instructed in the making of a pin-hole camera.

ATLANTA GRADUATE MEDICAL ASSEMBLY

The annual Atlanta Graduate Medical Assembly will be held at the Atlanta Biltmore Hotel February 20-22, 1956. A considerable number of prominent guest speakers have been engaged, and the topics to be covered embrace virtually the whole of medical practice.

Help your central office to maintain an accurate mailing list. Send your change of address promptly to the Journal, 529-36th Street, Des Moines 12, Iowa.

Iowa Academy of General Practice

SUI REFRESHER FOR GENERAL PRACTITIONERS

The Iowa Academy of General Practice is proud to have a part in the excellent Refresher Course February 15-18 that has been arranged by Dr. W. C. Keettel, director of postgraduate medical studies for the University's College of Medicine. It fulfills the desires of the Iowa Chapter officers for a course of high quality within our own state which they can recommend to members. All physicians in Iowa should take time off to attend this excellent program.

The registration fees are $10 for the entire course or $5 per day for IAGP members ($35 and $10, respectively, for other doctors). Physicians who wish rooms at the University's Continuation Center should apply in advance to Mr. W. D. Coter, SUI Extension Division, Iowa City.

The program of the Refresher Course is as follows:

Wednesday, February 15, 1956

Obstetrics and Gynecology

Morning Session

Moderator, Dr. J. H. Randall

9:00-9:30 a.m.	Address of Welcome—Dean Nelson Comments—William M. Sproul, M.D., Pres. Iowa Academy of General Practice
9:30-10:00	"Multiple Pregnancy"—W. B. Goddard, M.D.
10:00-10:30	"Common Problems of the Postpartum Patient"—J. H. Randall, M.D.
10:30-10:45	Intermission
10:45-11:15	"The Significance of Pelvic Pain"—Wm. F. Mengert, M.D., Prof. and Head School of Medicine, University Head, School of Medicine, University of Illinois, Chicago, Illinois
11:15-12:15	Question and Answer Period

Afternoon Session

Moderator, Dr. W. C. Keettel

2:00-2:30 p.m.	"Am I Pregnant, Doctor?"—James T. Bradbury, Sc.D.
2:30-3:00	"Elective Induction of Labor"—W. C. Keettel, M.D.
3:00-3:30	"Pitfalls in the Diagnosis of Ectopic Pregnancy"—Wm. F. Mengert, M.D.
3:30-3:45	Coffee
3:45-4:15	"Problems in Obstetrical Anesthesia"—Stuart Cullen, M.D.
4:15-5:00	Question and Answer Period

Thursday, February 16, 1956

Medicine

Morning Session

Moderator, Dr. William Bean

9:00-9:30 a.m.	"Management of the Hypertensive Patient"—Walter M. Kirkendall, M.D.
9:30-10:00	"The Treatment of Shock and Arrhythmia After Myocardial Infarction"—Lewis E. January, M.D.
10:00-10:30	"The Use of Antibiotics"—John M. Smith, M.D.
10:30-10:45	Coffee
10:45-11:15	"The Use and Abuse of Adrenal Steroids"—Edgar S. Gordon, M.D., Madison, Wisconsin
11:15-12:15	Question and Answer Period

Afternoon Session

Moderator, Dr. Elmer L. DeGowin

2:00-2:30 p.m.	"The Diagnosis and Treatment of Bleeding Tendencies"—Henry E. Hamilton, M.D.
2:30-3:00	"Management of Congestive Heart Failure"—William B. Bean, M.D.
3:00-3:30	"Vitamin Therapy"—Edgar S. Gordon, M.D.
3:30-3:45	Coffee
3:45-4:15	"Practical Problems Encountered in the Use of Insulin"—Robert C. Hardin, M.D.
4:15-5:00	Question and Answer Period

Friday, February 17, 1956

Pediatrics

Morning Session

Moderator, Dr. Charles D. May

9:00-9:30 a.m.	"Problems of Growth Failure in Children"—Charles H. Read, M.D.
9:30-10:00	"Common Orthopedic Problems in Children"—Michael Bonfiglio, M.D.
10:00-10:30	"Infant Feeding"—Charles D. May, M.D.
10:30-10:45	Coffee
10:45-11:15	"Common Problems of the Newborn"—Herbert C. Miller, M.D., Chairman, Dept. of Pediatrics, University of Kansas, School of Medicine, Kansas City, Kansas
11:15-12:15	Question and Answer Period

Afternoon Session

Moderator, Dr. Raymond R. Rembolt

2:00-2:30 p.m.	"Indications for Tonsillectomy and Adenoidectomy"—Dean M. Lierle, M.D.
2:30-3:00	"Respiratory Problems of the Newborn"—Herbert C. Miller, M.D.
3:00-3:30	"Management of Anemia in Infants and Children"—Margaret Lyman, M.D.
3:30-3:45	Coffee
3:45-4:15	"Pediatric Tidbits (Everyday Problems of Pediatrics)"—George R. Barnes, Jr., M.D.
4:15-5:00	Question and Answer Period

Saturday, February 18, 1956

Surgery

Morning Session

Moderator, Dr. R. Tidrick

9:00-9:30 a.m.	"Hemorrhoids, Fissures and Fistulas"—John Gius, M.D.
9:30-10:00	"Breast Tumors"—R. Tidrick, M.D.
10:00-10:30	"Blood in the Urine"—Raymond G. Bunge, M.D.
10:30-10:45	Coffee
10:45-11:15	"Hydrocele and Undescended Testes"—R. H. Flocks, M.D.
11:15-12:15	Question and Answer Period

Afternoon Session

Moderator, Dr. J. Ehrenhaft

2:00-2:30 p.m.	"The Use of Anticoagulants in Surgery"—E. E. Mason, M.D.
2:30-3:00	"Emergency Treatment of Burns"—Sidney Ziffren, M.D.
3:00-3:30	"Backache"—Carroll Larson, M.D.
3:30-3:45	Coffee
3:45-4:15	"Problems in the Diagnosis and Management of Massive Bleeding From the G. I. Tract"—Robert Hickey, M.D.
4:15-5:00	Question and Answer Period

CANCER SEMINAR AT PHOENIX

About 400 physicians from the Rocky Mountain states are expected to attend the Fourth Annual Cancer Seminar, which is to be held by the Arizona Division of the American Cancer Society, at the Desert Inn, Phoenix, on January 26-28, 1956.

Opening day sessions will concern neoplasms of the thyroid, liver and pancreas, and leukemia and lymphomas. On the second day, discussions will center around cancer of the skin, stomach and lung. The final day's program will deal with tumors of the spinal cord and the psychiatric aspects of malignant diseases. The speakers will include Dr. Alexander Brunschwig, of Cornell; Dr. Alfred Gellhorn, of Columbia; Dr. C. H. Hardin Branch, of the University of Utah; Dr. Averill Liebow, of Yale; Dr. Ian MacDonald, of the University of Southern California; Dr. H. C. Maier, of Columbia; Dr. Brewster Miller, director of professional education for the American Cancer Society; Dr. R. B. Raney, of the University of Southern California; Dr. J. A. del Regato, of the University of Colorado; Dr. L. G. Rigler, of the University of Minnesota; and Dr. D. A. Wood, director of the Cancer Research Institute, San Francisco. Registration fee is $5.

Fees and room reservation, should be sent to the Arizona Division of A.C.S., Drawer 71, Phoenix as far in advance as possible.

CLEVELAND DOCTORS SEEK INJUNCTION

The question of whether hospitals should be allowed to hire physicians and charge fees for their services went before Judge Samuel H. Silbert in Cleveland, Ohio, on December 15, after three months of bargaining had failed to settle the issue.

The Cleveland Academy of Medicine has asked for an injunction against the Hopkins Clinic in a test case. Most Cleveland hospitals are opposed to the issuance of the injunction.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

PUBLIC HEALTH NURSING IN IOWA COUNTIES

Frequently people ask, "What does the public health nurse do? What takes up most of her time?" Perhaps the following breakdown may answer those questions.

In providing guidance to the county public health nurses, the nursing staff of the Iowa State Department of Health assists them in evaluating their services on a day-to-day basis. But periodically an appraisal is made from their time studies and statistical reports. The prime value of such an appraisal is to help each nurse determine whether or not her emphases are in keeping with public health trends, and whether she has been directing her efforts toward meeting the major health needs of her community. The appraisal also provides objective information which the Department can use in interpreting the activities of public health nurses to employing and appropriating bodies and to others who are interested in public health work.

The appraisal serves still another purpose in that it shows us whether some of the nurses' activities are really public-health nursing functions or whether they should be performed by other workers.

The following tabulation shows the results of a study of the total time devoted to public health nursing activities in two monthly periods by 43 county public health nurses in all areas of the state.

TABLE 1

TIME DISTRIBUTION OF 43 COUNTY PUBLIC HEALTH NURSES NOVEMBER, 1953, AND APRIL, 1954

Type of activity	*Percentage*
Direct services to persons	31.54
Administration	25.02
*Office	27.71
Travel	15.73
	100.00

* Includes making records, reports and work plans.

The first two of the above-named types of activity, Direct Service to Persons and Administration, are the truly productive ones. The second of those headings, Administration, includes such functions as instructing classes, assisting at child health conferences and at immunization and tuberculosis clinics, and planning with educational, social and health agencies for meeting individual and community health needs.

The table reveals that office procedures take slightly more than one-fourth of the nurses' time, and they do so largely because the nurses have only a limited amount of stenographic assistance or none at all. Since nurses are scarce, it is felt that their time should be conserved for services which only they can perform.

Travel takes up a great deal of their time, too, but the nature of the county public health nurse's work makes it necessary that she visit patients' homes and that she conduct her classes and participate in conferences in the places that are most convenient for the members of those groups. Thus, there is little that can be done about cutting down on that portion of her time.

A comparative study can be made from the figures given in the following tabulation, for it presents the average percentages of time given by county public health nurses to individual persons during four biennial periods, from July 1, 1946 to June 30, 1954.

TABLE 2

BREAKDOWN OF NURSES' TIME SPENT ON DIRECT SERVICES TO PERSONS

Type of Service	*7/1/'46 to 6/30/'48*	*7/1/'48 to 6/30/'50*	*7/1/'50 to 6/30/'52*	*7/1/'52 to 6/30/'54*
Comm. Diseases	9.34	9.65	8.28	9.58
Veneral Diseases	3.40	1.34	1.24	.82
Tuberculosis	12.43	13.58	13.43	16.52
Maternity	7.64	5.46	5.40	4.61
Infant	12.36	6.46	7.06	7.18
Pre-School	17.33	14.05	15.56	14.65
School	23.86	27.23	23.18	21.59
Non-Com. Diseases	13.51	14.78	18.00	18.04
Crippled Child. Serv.	6.73	7.45	7.85	7.01
Total	100.00	100.00	100.00	100.00

It will be noted that the percentage of service given to communicable disease has changed very little. Venereal disease services have declined in each period, but in tuberculosis control there has been a substantial increase, especially in the last

period. The percentage of service to maternity patients has declined progressively, but in the infant services there has been a slight increase. The pre-school and school areas show a similar decline in percentage of total service because of the increased activity in other services. The definite increase in services for non-communicable diseases is in keeping with public health trends because of population changes. Time devoted to crippled children's services has varied about one per cent, and in the last biennium there has been a slight increase.

DIPHTHERIA OUTBREAK AT DAVENPORT

After having had no reported case of diphtheria since 1938, Scott County had had four cases of the disease and one death, and there had been one case in nearby Milan, Illinois, in 1955 (up to December 10).

A spokesman for the Scott County Medical Society reported that his group was more disgusted than alarmed. "We're disgusted," he said, "because diphtheria is something that we can fight through immunization—but too few parents have their children immunized against the disease."

A recent check, he reported, revealed that no more than 50 per cent of children in Davenport schools have been immunized against diphtheria.

COUNTIES IN WHICH POLIOMYELITIS CASES HAVE BEEN REPORTED

November 1—December 3, 1955

Black Hawk	4	Lee	2
Buchanan	1	Linn	1
Buena Vista	1	Marshall	2
Butler	3	Polk	2
Dubuque	1	Story	2
Franklin	1	Wapello	2
Howard	1	Warren	1
Ida	1	Webster	1
Jasper	2		
Johnson	2	Total	30

SALK POLIOMYELITIS VACCINE DISTRIBUTION

As the counties have requested it through their poliomyelitis vaccine distribution committees or groups, the State Department of Health has sent out Salk serum for use in inoculating persons who cannot afford to get it from their private physicians.

The Department requests that every county receiving vaccine should account for it in the same manner in which the Department must make an account. Therefore, packaged with every shipment of the vaccine are two report sheets, a copy of which is reproduced below.

It is suggested that the person or persons who are made responsible for the distribution of the vaccine in any county be assigned the duty of completing and forwarding the monthly reports to the State Department of Health.

The physician or clinic using the vaccine should be notified upon receipt of the vaccine that the monthly summary is required and should also be told what information will be required. If this is done, county summaries can be made without great difficulty.

POLIOMYELITIS IN IOWA

	1953	*1954*	*1955*
January	7	1	9
February	5	9	5
March	2	4	1
April	4	7	9
May	14	6	16
June	21	26	13
July	59	225	86
August	248	337	220
September	123	457	115
October	69	270	48
November	39	80	26
December	22	23	4*
Total	613	1445	552*

* Through December 3.

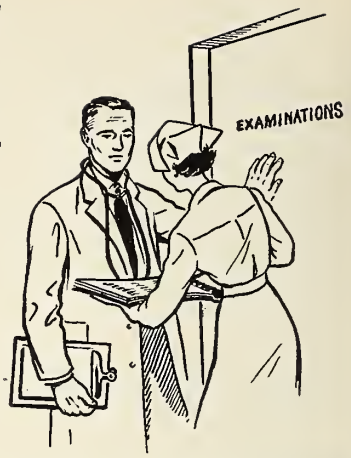
Total Cases Through Dec. 3	*Paralytic*	*Non-Paralytic*	*Unspecified*
552	108	379	65

MONTHLY REPORT OF NUMBER OF PERSONS RECEIVING INJECTIONS OF POLIOMYELITIS VACCINE DISTRIBUTED FROM THE IOWA STATE DEPARTMENT OF HEALTH

County Month Covered By Report

Groups Receiving Injections	*Number of Individuals Receiving* 1st injection	2nd injection	3rd injection	*Total Injections*
1. Under 5 years				
2. 5 through 9 years				
3. 10 through 14 years				
4. 15 through 19 years				
5. Total Injections Under 20 years				
6. Expectant Mothers				
7. Total Injections Under 20 years and Expectant Mothers				

THE DOCTOR'S BUSINESS



Your Retirement Income

HOWARD D. BAKER

WATERLOO

In recent articles, we have discussed the efficient management of your practice and the means by which you can render the best possible service to your patients, achieve the greatest ease of practice and realize the maximum of net profit.

When you have secured that profit, you are faced with a second and equally important problem: financial management. What are you going to do with your profits so as to realize a maximum benefit from them?

After providing for your personal needs, taxes and an adequate insurance program, your goal should be to establish a retirement program which will give you an adequate monthly income upon retirement, either forced or voluntary.

We think you will be interested in finding out what your years of retirement are likely to cost you, and in examining a scheme by which you can make provision for them. We have discussed investing wisely. But this alone will not accomplish your goals for retirement. You will need a specific, long-range plan, and it will be necessary for you to adhere to it.

First, you must decide upon the amount of the monthly income that you should like to provide for yourself and your wife in your retirement. Since, as we have said before, inflation seems likely to continue plaguing us, it's prudent that you be liberal in your estimate.

Now, if you were to wait until you reached age 65 and wished or were forced to retire, an income of just $10 per month for the remainder of your life expectancy would require a cash fund of $1,245. A bit of arithmetic will almost certainly convince you that you would be wise not to wait until then to begin accumulating the money that you will need.

Over the past 15 years, investment portfolios balanced between dollar contracts (e.g., bonds) and flexible contracts (e.g., stocks) have yielded an average return of 5 per cent. At that rate, the amount that you must invest during each of the remaining years before you reach age 65 to provide yourself $10 per month* for the remainder of your life expectancy can be found in the following table.

Present Age	*Annual Investment at 5% to Provide $10.00 per Month* After Age 65*
35	$ 18.70
40	26.10
45	37.70
50	57.60
55	99.00
60	225.00
65	1,245.00

How does your life insurance program fit into your retirement plan? Every $1,000 of permanent life insurance that you have will provide a lifetime monthly income of approximately $4.50 from accumulated cash reserves, beginning at age 65. An audit of your policies will inform you of the specific amount that will be available.

These are the tools with which you can formulate your retirement income plan. To illustrate, let's assume that you are 35, that you have an annual net profit of $25,000, and available savings of $4,200 per year after personal expenses, taxes life insurance premiums and debt reduction. You want to initiate a retirement plan that will pay you $800 per month for life from age 65. Your $50,000 insurance program will provide $225 of that income.

You have 30 years left before you reach age 65, and when you reach that point, you will have a life expectancy of 14.4 years. Your investments must be such as will provide you $575 per month, in addition to the income from your insurance policies.

To find the sum that you must invest at 5 per cent interest or dividend each year, we divide $575 by $10, getting 57.5, and then we take the sum that the table provides us, $18.70, and multiply it by 57.5, getting $1,175.25 as our answer.

Thus, what may at first have seemed an impossible goal turns out to be one that is well within your reach, provided only that you adhere to your resolve to invest the prescribed amount with unfailing regularity.

Mr. Baker is manager of the Retirement Planning Department of Professional Management.

* These monthly payments would consume both principal and interest.

WOMAN'S AUXILIARY NEWS

Mrs. Edw. B. Hoeven, *Woman's Editor*
224 East AltaVista, Ottumwa

Mrs. Wilson Wolfe, *Asst. Woman's Editor*
N.E. Elm Street, Ottumwa

LINES FROM THE PRESIDENT

"There are 365 days in the year. Some people get only a week's value out of a month; others get a full month's value out of a week. Jesus accomplished the ministry of a lifetime in three years. Am I making the best use of each day's opportunities?" These are the meditations of Mrs. George Turner, the immediate past-president of our National Auxiliary, and those of you who have come to know her share my admiration for her ability and judgment.

In retrospect, are we taking pains to evaluate our accomplishments? Are we getting a maximum of use from each day of the year? As Auxiliary members, have we taken advantage to the full of the many opportunities that have been offered us in the past nine months?

As we begin the New Year, let's recheck our goals and put all unfinished Auxiliary work at the top of our agenda, for concentrated effort in the remaining three months.

If you were unable to accomplish the things which we planned for last fall, won't you start on them now? Plan and conduct a district meeting, inviting your State Medical Society councilor and an officer of your State Auxiliary. Help organize a new Auxiliary chapter. Entertain your Future Nurses at tea, or if your local high school has no Future Nurses club, start organizing one. Contribute to our State Loan Fund. Secure TODAY'S HEALTH subscriptions. Sponsor a GEMS training course in your city. Emphasize safety-in-the-home. Encourage gifts to AMEF in preference to the sending of flowers to the bereaved relatives of doctors. For one of your county Auxiliary programs in January, secure a good speaker on mental health. Consult Mrs. L. A. Coffin, of Farmington, for suggestions. Plan a visit to a Mental Health Institute.

We practice good public relations when we participate in community activities. The doctor's family is held in great respect in the community. Let's keep ourselves worthy of that respect, and in particular, let's be slow to criticize and quick to praise.

In our Auxiliary work, we must not lose sight of the fact that we are all doing volunteer work. If things aren't accomplished so soon as we think they should be, let's remember the many obligations that every doctor's wife must meet in addition to her Auxiliary duties. I am sure that each of us will eventually achieve the goals that she has set for herself. Great work can be done through patience and perseverance!

In February, send in your state and national dues to Mrs. E. A. Vorisek. The deadline is March 1. Encourage the organization of a civil defense group in your locality, if none is already in existence. Complete your plans for an exhibit at the State Meeting.

In March, send the names of your 1956 officers to me and to the secretary of the State Auxiliary. Some county Auxiliaries are asking their 1955 officers to carry over until March, and are planning to elect new ones then. Send me your necrology lists. March 30 is Doctor's Day. Celebrate it in your county. Submit Achievement Award sheets before April 1.

In April, elect delegates and alternate delegates for the State Meeting, and send their names to Mrs. Robert P. Mason, the state secretary. Reserve the dates April 22-25 so that you will be sure of being able to attend the State Meeting in Des Moines. Let's boost our registrations this year to an all-time high.

Please cooperate so that our State Auxiliary files can be closed by the first of May and our reports to National can be sent in on time.

"Be kind, be good,
Do what you should
And prithee, see you do it now—
Tomorrow's too late to vow
And kindness doth not warm the dead
Go follow where the saints have led."
—Author unknown

Mrs. Charles H. Flynn
President

SUBSCRIPTIONS TO TODAY'S HEALTH

So you forgot to give those gift subscriptions in time for Christmas! Well, cheer up. There still is time to give subscriptions to those who have done favors for you. And give them to shut-ins, to elderly friends or relatives, to newlyweds or to new parents. Your gift will remind them of your thoughtfulness 12 times throughout the year.

And don't forget your child's teacher.

CONFERENCE OF PRESIDENTS AND PRESIDENTS ELECT

At the Twelfth Annual Conference of state Auxiliary presidents and presidents-elect and national committee chairmen, in Chicago on November 1-3, Iowa was represented by Mrs. C. H. Flynn, president; Mrs. D. H. King, president-elect; and Mrs. Lester Hegg, immediate past president of the Iowa Auxiliary and a member of the North Central Region National Committee on Organization. The meeting, like its predecessors, had as its purposes the exchange of ideas, the discussion of problems and the correlation of state programs.

Participants in the ten panel discussions were state presidents who had been handed their topics a month in advance. Nationally prominent guest speakers were included in the panels, and the formal talks were followed by question-and-answer periods. All remarks of all panel members and guest speakers will be published in the next issue of the BULLETIN.

Mrs. Flynn served on Panel One, which dealt with the topic of Organization. The guest speaker with that group talked on the subject of "Injury and Death on the Highways." At the meeting of Panel Two, the audience was told that women can be of great help both in preventing and in mitigating emotional disturbances by learning and teaching increased respect for the individual as a human being.

Panel Three provided the state Auxiliary representatives with a three-point program for participation by their organizations in AMEF drives: organization, education and solicitation. A campaign for securing gifts for the support of medical education from the lay public employing the slogan "80 dimes" was begun at about the time of the meeting. The figure "80" was chosen because it is approximately the number of the medical schools in the country.

Addressing the group that assembled to hear Panel Four, Mrs. Martin Norgore, of Washington, asked women to take Red Cross Home Nursing and First Aid courses and then to become teachers, and she referred her hearers to a family program that was published in the November issue of TODAY'S HEALTH. Program chairmen of county Auxiliaries will be interested in a Civil Defense play, "Forty-Five Minutes From Eternity," copies of which can be secured from Mrs. Paul Rauschenbach, 612 E. 29th, Paterson, New Jersey.

Panels Five, Six and Seven dealt, respectively, with TODAY'S HEALTH, programs and legislation. Attractive and memorable slogans proposed at those sessions are certain to remain fixed in the delegates' minds: "Buy a copy, sell a copy, give a copy!" (for TODAY'S HEALTH); "Your state program goes on all year!"; "Behold the turtle—he makes progress only when his neck is out!"; and "Unlocking the power of the atom is nothing to the unlocking of the power of Woman's Auxiliary members!" (as regards legislative activity).

The women who attended Panel Nine were told that a six per cent increase in admissions to nurses training schools is evidence of the effectiveness of cooperative activities in nurse recruitment. County nurse recruitment chairmen are urged to secure copies of an attractive new brochure, GUIDE FOR FUTURE NURSES CLUBS, which contains, among other things, suggestions for programs at club meetings. They cost 50 cents each, and the address is Committee on Careers in Nursing, New York City.

The speakers who composed Panel Ten made a particularly worthwhile suggestion. They proposed that county Auxiliaries should make lists of key women in other community-service and social organizations and supply those lists to their state medical societies and to the AMA. Those individuals could then be approached when action is needed in legislative and health programs. These speakers whose topic was public relations made several other important points:

(1) Children should be encouraged to train themselves for careers in biological and health fields.

(2) When we plan public relations programs, we must plan wisely, promote effectively and publish well.

(3) Service to the community does not go unobserved; we are often classified as doctors' wives.

At a forum on the BULLETIN, state Auxiliary officers were urged to keep a file of the issues of the publication, and were invited to submit items for inclusion in future issues. Mrs. F. B. Leffert, of Centerville, BULLETIN chairman for Iowa, was honored by having her letter of suggestions read to the conference.

The guest speaker on the Tuesday noon program was Mr. Donald D. Hoover, Head of Eastern Operations for Bozell & Jacobs, Inc., public relations consultants for the AMA. He said that many national organizations are planning to join with the AMA in opposing H.R. 7225, the bill designed to make Social Security benefits immediately available to the permanently and totally disabled, and he urged that doctors refrain from appearing first and alone on the firing line so as to be targets for the first shots of the bill's proponents.

In addressing the conference on Wednesday noon, Dr. Elmer Hess, president of the AMA, reminded the delegates that "Socialized medicine is not dead; it is just sleeping." He suggested that we make every day a Thanksgiving Day, for, as he said, America is a free country, and we live and work in freedom. Today American medical education is the envy of the world.

The conference ended, on Thursday, with greetings from Dr. G. F. Lull, secretary and general manager of the AMA, and an address by Dr. Austin Smith, editor of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Those of the delegates who availed themselves of their opportunity to tour the nine-floor headquarters building of the AMA were shown three movies, all of which are excellent for showing at county Auxiliary meetings and at schools, under Auxiliary sponsorship. "Careers—Medical Technologists" is in color and is wonderful and inspiring. Our national Auxiliary president has a part in "Danger at the Source," a film which solicits private gifts to medical education. "Automotive Crash Injuries," which portrays the results of the Cornell University Medical College Research Program, is most effective and can be made a part of any safety program.

Many of Iowa's ideas were included in the exhibits at the conference, and there was evidence that other Auxiliaries had used much of Iowa literature.

Mrs. Dean H. King
President-Elect



NEWS AND VIEWS

The midnight bells have pealed; confetti has been thrown; toasts have been drunk; and the jubilant greetings are a fond memory. They were a part of the old year—a final gesture a *bon voyage* to the old one, limping away into the infinite.

The old year has ended. But there is hope and thankfulness as we greet the new one. Another year! Another chance to do the things we know we should do—things we want to do, but put off from day to day.

This year we have 366 golden days, the Lord willing, to accomplish small miracles in our everyday lives; to make some dream a reality. We have been given *time,* the one priceless commodity. Down deep in each of us lies gratefulness for that gift, unexpressed throughout the year. It bursts forth as unrestrained joy only at the dawn of the New Year, and in our exultation we make resolutions to use our time to better purpose than ever before.

Now, we promise ourselves, we shall have time to ask a neighbor in for coffee and a friendly visit; time for a visit to a lonely grandmother; time to write the letters we seemed never to be in the mood to write; time for the other little kindnesses which we have felt in our hearts but failed to express. We'll have time, we say, for the big things too—like keeping America free for our children.

And so we turn another page. But first, let's take a last look, and a critical one, at the last page, for the smudges and the blots there represent the errors which we must take care to avoid repeating. Let's think about them with penitent hearts before we turn resolutely toward the days ahead.

The future waits for us just beyond that first crimson sunrise—the golden days of tomorrow and tomorrow.

The Woman's Auxiliary to the Wapello County Medical Society had its December meeting at the home of its president, Mrs. D. O. Bovenmyer, in Ottumwa. Mrs. C. E. Swanger, a charter member of the Mahaska County Auxiliary who recently moved from Oskaloosa to Eldon, was welcomed as a new member.

Following a brief business meeting and a social hour, coffee and dessert were served by the December hostess committee consisting of Mrs. E. B. Howell and Mrs. H. E. Wormhoudt.

The Woman's Auxiliary to the Polk County Medical Society met for a luncheon on November 14 at the Des Moines Golf and Country Club. Following a brief business meeting at which Mrs. Ralph Hines presided, Mrs. Harry Haskins gave some very interesting demonstrations of Christmas decorations.

The November meeting was guest day for all doctors' wives new to Des Moines. The hostesses were Mrs. Lawrence Ely and Mrs. Donald Schissel.

Sixty active, interested girls now compose the Future Nurses Club of Ottumwa High School. They give four hours of voluntary service to the Ottumwa Hospital each week day and sixteen hours on Saturday.

At present, they are planning to make pinafore aprons to wear in the Hospital. Before Christmas, they held a cooperative supper and went out to sing carols afterward.

The president, Miss Betty Campbell, was a delegate to the Ames meeting of the Governor's Conference on Children and Youth, in November, and participated in a panel discussion on "The Employment of Youth."

The Page County Woman's Auxiliary presented Dr. and Mrs. Norman Render with a sterling silver bon bon basket as a going away gift. The Renders left on December 1 for Norfolk, Nebraska, where Dr. Render will be staff psychiatrist at an institution resembling that at Clarinda. They received other beautiful gifts from friends and employees of the Mental Health Institute.

The man who is succeeding Dr. Render as medical director of the Clarinda Mental Health Institute, Dr. Karl Catlin, and Mrs. Catlin are the proud parents of their third child and first son. He has been named Karl Eugene.

John Sperry, son of Dr. and Mrs. Frederick S. Sperry, of Clarinda, is the nineteenth winner of the Boy Scouts' Eagle Award since scouting began in his town, back in 1916. The parent-son ceremony at which the presentation was made, was presided over by Dr. H. S. Frenkel.

At a meeting held in the home of Mrs. B. L. Basinger, in Goldfield on November 10, the following new officers of the Wright County Medical Auxiliary were elected: Mrs. Richard Young, president; Mrs. Arlo Pitcher, vice-president; Mrs. Basinger, secretary; and Mrs. Richard Smith, treasurer. The attendance totaled eleven, including representatives from Clarion, Eagle Grove and Belmond. A new member, Mrs. Dale Harding, was welcomed, and Mrs. S. P. Leinback, state exhibit chairman, gave a splendid report of the fall Board Conference.

"If the nation values anything more than its freedom, it will lose its freedom; and if it values comfort or money more, it will lose that too."

—W. SOMERSET MAUGHAM

BIVALVE CYCLISTS

Sign in a fishmarket window:

Wanted: BOY TO DELIVER OYSTERS THAT CAN RIDE A BICYCLE

AMERICAN MEDICAL EDUCATION FOUNDATION

Did you know that $450,000 has been contributed during the first five months of this year to help our hard-pressed medical schools? Did you know that your Auxiliary gave 17 per cent of that total?

Some states contributed as much as $3.00 for each Auxiliary member, and some contributed as little as $.20 per member.

What has your county Auxiliary contributed? Perhaps in the rush of your busy life you have forgotten the importance of this project. If successful, it will take the play away from those who urge government subsidies for medical education.

As a doctor's wife, are you indebted to one of your husband's colleagues for medical service given you as a professional courtesy? Or perhaps some member of your family has received such attention. Instead of sending your family physician a gift in expression of your appreciation, why not make a contribution to the project in which he is deeply interested? If you do so, you will be provided a lovely card, made especially for the purpose, that you can use in telling him what you have done.

Your check for the contribution should be sent to your state chairman for AMEF, Mrs. H. A. Spilman, of Ottumwa. Ask your county president for the card.

SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa

Thursday at 11:15 a.m.

"MEDICINE FIGHTS THE KILLERS"

January 5 ..... Accidents
January 12 ..... Nephritis
January 19 ..... Premature Birth
January 26 ..... Tuberculosis

WSUI—Iowa City, Iowa

Tuesday at 11:45 a.m.

"MEDICINE, U. S. A."

January 3 ..... To Free From Pain
January 10 ..... A Matter of Perspective
January 17 ..... Excuse for Not Living
January 24 ..... Recovery
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WOI-TV—Ames, Iowa

Thursday at 9:30 p.m.

"MEDICAL DIARY"

January 5 ..... Boy-Girl Relationships, Part II
January 12 ..... Personal Hygiene and General Health
January 19 ..... Skin Troubles in Teen-agers
January 26 ..... Weight Problems in Teen-agers

KGLO-TV—Mason City, Iowa

Sunday at 5:00 p.m.

"MEDICAL DIARY"

January 1 ..... Training the Deaf
January 8 ..... Cerebral Palsy
January 15 ..... Trends in Psychiatry
January 22 ..... Sleep
January 29 ..... Teen-age Medical Problems

KCRG-TV—Cedar Rapids, Iowa

Saturday at 5:30 p.m.

"MEDICAL DIARY"

January 7 ..... Deafness
January 14 ..... Training the Deaf
January 21 ..... Cerebral Palsy
January 28 ..... Trends in Psychiatry

KTIV-TV—Sioux City, Iowa

Saturday at 5:30 p.m.

"MEDICAL DIARY"

January 7 ..... Diabetes
January 14 ..... Deafness
January 21 ..... Training the Deaf
January 28 ..... Cerebral Palsy

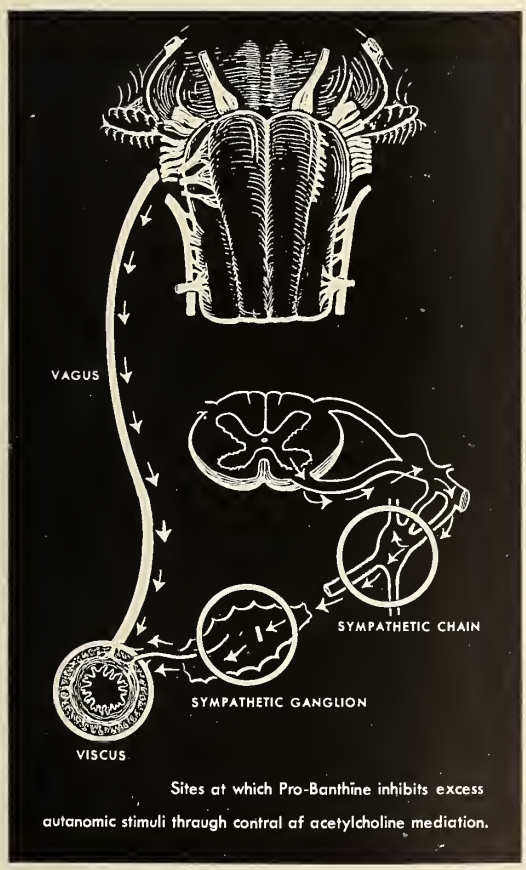
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---

1. Schwartz I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: Gastroenterology *25*:416 (Nov.) 1953.

2. Roback, R. A., and Beal, J. M.: Gastroenterology *25*:24 (Sept.) 1953.

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The Month in Washington

Washington, D. C.—The second session of the eighty-fourth Congress is under way, and in medical legislation—as in all other fields—this promises to be much livelier than last year's deliberations.

For one thing, neither the Republican administration nor the Democratic party, which is in control on Capitol Hill, got anywhere near as much as it wanted last year in medical legislation.

For another thing, and something that shouldn't be lost sight of at any time, both parties this year will be legislating with one eye cocked toward next November, when the voters make a choice between the two parties. Try as they may to pass laws for the good of all the people, neither party can afford to ignore the political realities of the situation; each will want to take credit for any legislation with popular appeal, or where that is impossible, at least to see that the other party doesn't get the credit.

In front of this political mosaic, these are some of the medically-important issues that will be fought out in Senate and House:

1. Federal guarantee of mortgages on health facilities. This has been on the Congressional calendar for two years; it was pushed hard in 1954, and was given some consideration in 1955. It would mean that the federal government would underwrite mortgages for hospitals, clinics and nursing homes, under certain conditions, thereby allowing some sponsors to obtain loans they couldn't otherwise get, or to obtain them on longer terms and with lower interest.

2. Federal grants for research facilities. Under this plan—approved last session by the Senate—the U. S. would make outright grants to laboratories, medical schools and clinics for building facilities for research in specific diseases, such as cancer and heart disease.

3. Federal aid to medical education. This perennial project probably is closer to Congressional enactment now than ever before. The most popular bill is one restricting the federal role to grants for building and equipment, with a financial incentive held out to those schools willing to increase their enrollment. This bill may be tied in with some other grants bill, such as the one for research.

4. Salk vaccine. Legislation authorizing federal appropriations for the purchase of Salk poliomyelitis vaccine ($30 million for the current year) expires February 15, virtually insuring Congressional action of some sort before that date. One issue is whether the federal government should continue the grants; more controversial is the question of whether the U. S. should move in to control the allocation and distribution of the vaccine. Allocation and distribution now are handled

under a voluntary program supervised by the U. S. Public Health Service.

5. Increases in federal appropriations for medical research. Over the last few years—since the National Institutes of Health came of age—Congress repeatedly has increased research grants over the amounts which the Budget Bureau allowed Public Health Service to request. Indications are that this year the Budget Bureau may have to give way and allow important increases to be requested of Congress. Congress probably would want to add on its own special additions anyway, resulting in more money than ever before available for work on cancer, heart disease, mental illness, arthritis, blindness and the many other conditions.

6. OASI-covered persons could receive payments beginning at age 50 if they were found to be disabled. Under present law, retirement payments for all are available at age 65. The bill containing this provision (H. R. 7225) passed the House last session by an overwhelming margin. It is now before the Senate Finance Committee, where the next phase of the legislative contest will be fought out in 1956.

The lop-sided House vote on disability payments may be discounted in part because of the parliamentary maneuvering by sponsors of the legislation. House members had only 40 minutes to debate this bill and no opportunity to amend it. It was a case of accepting the whole bill—which contains a number of other social security liberalizations not of medical significance—or being politically damned as opposed to social security *per se*.

The American Medical Association maintains that the present expanding rehabilitation programs would be undermined by cash payments for disability, that the financial and other long-range aspects of the disability payments plan have not been thoroughly studied, and that the machinery for disability payments would inevitably project the federal government deeply into the medical care picture.

PAN-AMERICAN MEDICAL WOMEN'S ALLIANCE

The Fifth Congress of the Pan-American Medical Women's Alliance will be held in Santiago and Vina del Mar, Chile, March 6-13, 1956. Pre and post convention trips are planned to Mexico, San Salvador, Panama, Peru and Bolivia.

Further information can be obtained from the secretary, Dr. Eva F. Dodge, 2124 West 11th Street, Little Rock, Arkansas.

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

February 28, 29, March 1, 2, 1956

Palmer House, Chicago

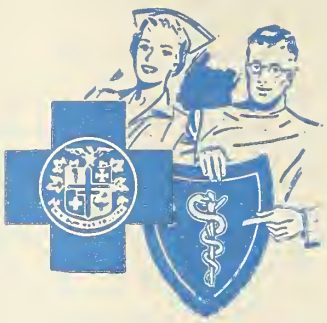
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BLUE CROSS



BLUE SHIELD

Medical-Surgical Prepayment Systems In the United States

Some figures that are worthy of repetition were quoted by Dr. Leonard W. Larson, of Bismarck, North Dakota, chairman of the Commission on Medical Care Plans, at the AMA Interim Session in Boston.

Incomplete results of his group's survey show that approximately 500 commercial insurance carriers are writing surgical-medical coverage. As of December 31, 1954, the 430 companies on which statistics were available insured 53,000,000 people for surgical expense, 21,000,000 for regular medical expense and 2,250,000 for major medical expense.

Medical society and related plans, including Blue Shield, number 116 and have combined enrollments of approximately 34,000,000 for surgical benefits and 25,000,000 for regular medical benefits.

Miscellaneous and unclassified plans not in the above two major classifications constitute one of the important areas of the Commission's study. It is estimated that there are 250-300 of them throughout the country, and their enrollment is growing constantly. In this category are union-sponsored plans, closed panels, cooperative service and indemnity systems, industry-sponsored plans, etc. The following information has been obtained concerning 206 of them:

1. Sixty-four plans (32 per cent), with an enrollment of 1,178,295, are either cash indemnity, service (full payment), or a combination of the two. Forty-six plans (72 per cent of the 64) are indemnity plans. Enrollment in these 46 constitutes 13.6 per cent of enrollment in all such plans.
2. One hundred twenty-eight plans (62 per cent), with an enrollment of 2,386,769, are closed panel, either open to the public or limited to a specific industry, union or other group. Their members constitute 48 per cent of the enrollment in such plans.
3. Fourteen plans (almost 7 per cent), having an enrollment of 1,389,280, are combinations of cash indemnity, full payment and closed panel. Their members constitute 28 per cent of the enrollment in such plans.

So far as the number of plans is concerned, more of them in this group are joint employer-employee arrangements than are any other sort. However the union-sponsored plans have the greatest combined enrollment (36 per cent) of all such plans.

In the Midwest, and particularly in Iowa, plans of the miscellaneous and unclassified types have not yet attained prominence. But their existence elsewhere and their growing enrollments constitute a challenge for us to continue providing the best possible prepayment system through Blue Shield. That is the only way in which we can prevent the formation of schemes in which the doctor has *no voice*.

Your Blue Shield President Reports:



Work continues on proposed improvements in Blue Shield. Six meetings have been held at the county and councilor district level with the following meeting dates already established in 1956.

January 11	District No. 10—Dr. Peggs—Creston
January 12	District No. 6—Dr. Porter—Marshalltown
January 18	District No. 1—Dr. Fritchen—Oelwein
January 19	District No. 7—Dr. Van Epps—Iowa City
January 30	District No. 8—Dr. Sunderbruch—Burlington
January 31	District No. 8—Dr. Sunderbruch—Davenport

The purpose of these meetings is to provide an opportunity not only for a thorough discussion of the inequities in the present contract but also and more importantly, for the development of a more realistic plan for the middle income group. If we aren't realistic in the development of our own plan, the public may elect other means of financing its health costs.

It is hoped many doctors will be present to give us the benefit of their helpful constructive suggestions for the improvement of their plan, Blue Shield.

Martin F. Olsen M. D.

President

Coming Meetings

(Continued from page 36)

Feb. 13-15	**Internal Medicine for Internists.** U. of Minnesota Center for Continuation Study, Minneapolis
Feb. 13-16	**American College of Surgeons.** Bellevue-Stratford Hotel, Philadelphia
Feb. 13-16	**Radiology & Radioactive Isotopes.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 13-17	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 13-17	**Obstetrical and Gynecological Assembly of Southern California.** Ambassador Hotel, Los Angeles.
Feb. 13-18	**Laryngoscopy, Voice & Speech Pathology, and Audiology.** Mt. Sinai Hospital, NYC
Feb. 13-24	**Office and Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Feb. 14-16	**Midwinter Postgraduate Clinics.** Colorado State Medical Society, Denver
Feb. 15	**Symposium on Heart.** Indiana University School of Medicine, Indianapolis
Feb. 16-18	**Cancer Detection for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis
Feb. 20-21	**Office Proctology.** Mt. Sinai Hospital, NYC
Feb. 20-22	**Atlanta Graduate Medical Assembly.** Atlanta Biltmore Hotel, Atlanta
Feb. 20-22	**Refresher Course for General Practitioners.** Vancouver General Hospital, Vancouver, B.C.
Feb. 20-24	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 20-Mar. 2	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 20-Mar. 2	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Feb. 23	**Psychiatric Problems in General Practice.** U. of Buffalo School of Medicine, Buffalo
Feb. 24-25	**Hearing and Speech Conference.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 27-28	**Tenth Annual Heart Confcrence.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 27-29	**Auscultation of Heart.** New York University, NYC
Feb. 27-29	**E.E.N.T. Continuation course for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis
Feb. 27-29	**Electrocardiography.** Indiana U. School of Medicine, Indianapolis
Feb. 27-29	**Sectional Meeting, American College of Surgeons,** Milwaukee
Feb. 27-Mar. 1	**Demonstration of Clinical Management of Poliomyelitis.** Texas Medical Center, Houston
Feb. 27-Mar. 1	**New Orleans Graduate Medical Assembly.** Municipal Auditorium, New Orleans
Feb. 27-Mar. 2	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Feb. 27-Mar. 9	**General and Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Feb. 27-Mar. 9	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Feb. 28-Mar. 2	**Annual Clinical Conference of the Chicago Medical Society.** Palmer House, Chicago

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Latest Facts on Feeding the Sick



Adequate nutrition during illness and convalescence is essential for recovery whether the patient is managed in the hospital or at home. In the latter case, physicians often must devote much time to instructing those responsible for caring for the sick in good nutritional practices.

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PERSONALS

A portrait of **Dr. P. J. Leinfelder,** professor of ophthalmology at SUI, is reproduced on the cover of the November 15, 1955, issue of MODERN MEDICINE, and the magazine contains his article "The Role of Visual Fields in Diagnosis." An accompanying biographical note says, "He has done a great amount of research in neuro-ophthalmology and retinal and nervous system physiology, and in 1940 he received the Merit Prize in Research from the Association for Research Ophthalmology."

In this latest of his papers, Dr. Leinfelder explains how the site and cause of a number of eye and nerve disorders can be detected through tests of the patient's visual field.

The Fayette County Medical Society gave a dinner at the Moose country home, at Oelwein on December 13, in honor of **Dr. Elizabeth Smith-Kennedy,** who is completing 55 years in the active practice of medicine. Dr. Smith-Kennedy is a Life member of the Iowa State Medical Society. Her two daughters and a niece whom she reared are also doctors of medicine.

Dr. Alson E. Braley, head of the Department of Ophthalmology at SUI, has announced that the services of the "eye bank" recently established at Iowa City with the cooperation and financial assistance of 250 Lions clubs throughout the state will be available not only to eye surgeons on the staff of University Hospitals, but also to private practitioners who tell him that they wish to transplant corneas in their own patients.

Promptly following the death of an individual who has bequeathed his eyes to the bank, the nearest doctor or doctors who have notified him of their need will be alerted, so that the corneas can be utilized with a minimum of delay.

Dr. Arthur Steindler, a Life Member of the Iowa State Medical Society, was guest of honor at a reception given in Iowa City on December 3 by the social fraternity Phi Epsilon Pi, of which he is an alumnus. Three hundred fifty guests attended.

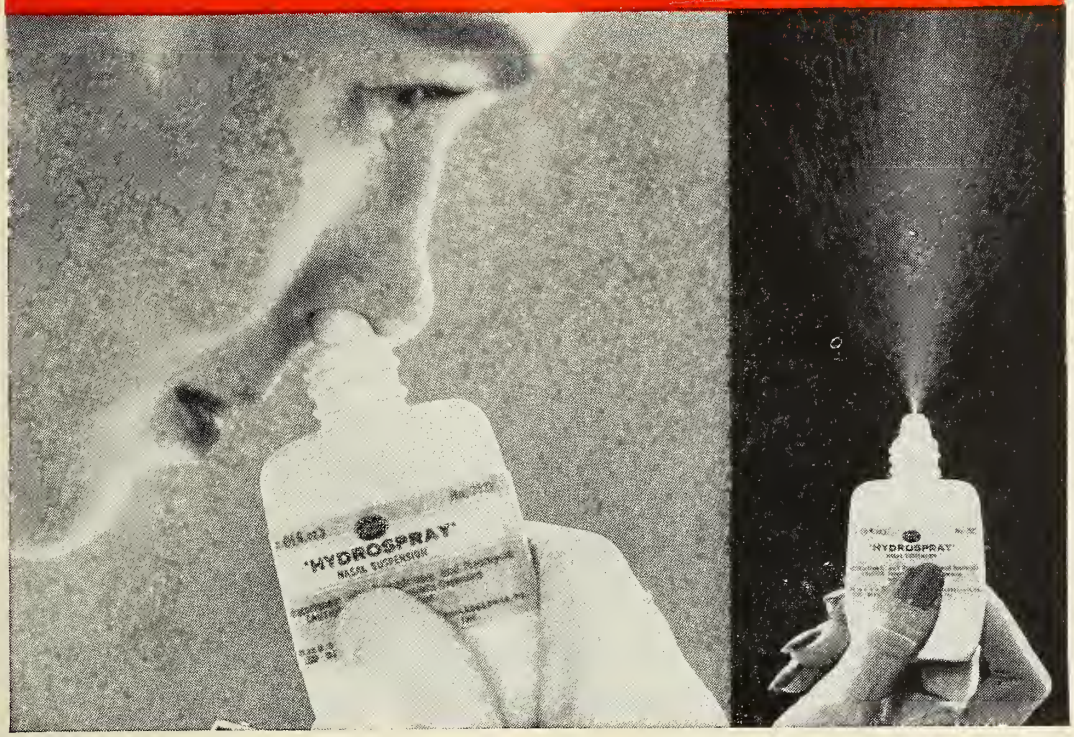
A distinguished service professor emeritus of orthopedics, Dr. Steindler headed the SUI Department of Orthopedic Surgery from 1927 until 1949. Since then, he has continued to practice at Mercy and University hospitals, Iowa City, and to lecture weekly to medical students. This month he will visit Mexico, with his wife, and will deliver several addresses to medical groups there.

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REFERENCE: 1. Silcox, L. E., *A.M.A. Arch. Otolaryng.* **60**:431, Oct. 1954.

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Surgery of Colon & Rectum, One Week, February 27, April 9
General Surgery, One Week, February 13, Two Weeks, April 23
Basic Principles in General Surgery, Two Weeks, April 9
Gallbladder Surgery, Ten Hours, April 9
Fractures & Traumatic Surgery, Two Weeks, March 12
GYNECOLOGY—Office & Operative Gynecology, Two Weeks, February 13, March 12
Vaginal Approach to Pelvic Surgery, One Week, February 6, March 5
OBSTETRICS—General & Surgical Obstetrics, Two Weeks, February 27, March 26
MEDICINE—Internal Medicine, Two Weeks, May 7
Electrocardiography & Heart Disease, Two Week Basic Course, March 12
Gastroscopy, Forty-Hour Course, March 19
Dermatology, Two Weeks, May 7
RADIOLOGY—Diagnostic X-Ray, Two Weeks, February 6, April 30
Clinical Use of Radioactive Iodine, One Week, April 2
Clinical Uses of Radioisotopes, Two Weeks, May 7
PEDIATRICS—Intensive Review Course, Two Weeks, May 14
Neurological Diseases: Cerebral Palsy, Two Weeks, June 18
UROLOGY—Two-Week Course, April 16
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One of the many tributes to Dr. Steindler is a "Steindler Alumni Association" which has members throughout the world. A group of his onetime students who practice in Buenos Aires raises money to send one Argentine physician each year to study under him.

The physicians of Minnesota and Wisconsin were made eligible, along with those of Iowa, Illinois and Missouri, for membership in the Mississippi Valley Medical Society at the organization's annual meeting in Quincy, Illinois, in November. **Dr. Frank Peterson**, of Cedar Rapids, is president-elect of the Society, and **Dr. C. M. Zukerman**, of Davenport, is vice-president for Iowa.

Dr. Frank F. McKean, of Allison, took possession of a new office and clinic building there on December 1.

Dr. Milford D. Hayden cut short his advanced study at Lynn General Hospital, Detroit, to return to his practice in Marcus on receiving news that his associate, **Dr. M. F. Joynt**, was ill. Dr. Joynt then went to the East Coast for a rest, and though apparently he hadn't anticipated having to do so, he underwent surgery at a Baltimore hospital on November 14.

Dr. Emery A. Rust, of Webb, a Life Member of the Iowa State Medical Society, was hospitalized at Spencer in mid-November to undergo treatment for a heart condition that had made its appearance a week or two earlier. Though his condition had at first been quite serious, at last report he was progressing satisfactorily.

Dr. M. A. Armstrong was feted on November 17 at a church gathering in Newell, in recognition of his having completed 40 years of service to the community.

Dr. R. C. Crumpton, of Webster City, was just entering his office on November 16 and was hurrying to the telephone when he slipped, fell and fractured his left hip. He attributed the fall to the snow that had remained on his shoes.

Addressing the Public Health Cancer Association in Kansas City, Missouri, on November 17, **Dr. Edmund G. Zimmerer**, Iowa Commissioner of Health, declared that cancer controllers need to set up a new line of attack, for cancer deaths are increasing in spite of our achievements in certain limited areas of the problem. Education, he said, apparently has not been successful enough in bringing people in for diagnosis and early treatment, and diagnostic clinics are useless unless patients come to them.

Dr. Everett M. George, a Des Moines orthopedic surgeon and scientific editor of this JOURNAL, was named vice president of the national affiliation committee of United Cerebral Palsy, during a meeting of the organization in Boston on November 12. Dr. George is vice-president of the Iowa division of United Cerebral Palsy.

Dr. Grayson Carroll, professor of urology at the St. Louis University Medical School was principal speaker at a meeting of the Iowa Urological Society on December 10 at Iowa City.

Dr. J. M. Gacusana, a graduate of the Creighton University School of Medicine who has practiced previously in Hot Springs, South Dakota, and Mahnomen, Minnesota, has opened an office in Akron. He is a native of the Philippine Islands and has lived in this country since 1921.

In announcing to the press that he will leave Iowa on January 8 to become director of teaching, research and training at the state hospital in Marlboro, New Jersey, the institution from which he came here in 1947, **Dr. C. C. Graves,** director of mental institutions for the State Board of Control, told the press that he had given up hope for the establishment of an intensive treatment center and a research and training program in this state.

"Figures from Indiana and Ohio indicate that if you can bring the patient voluntarily, which means early in his illness, to a properly equipped and staffed intensive treatment unit, there are four chances out of five that he can be returned to his home from three to six months later." Under present conditions, no more than three out of five such patients are so benefitted.

"Let us assume," Dr. Graves suggested, "that acute intensive treatment would cost $8 per day per patient. If such a patient could be returned home in 90 days, the total cost would be $720. In contrast, should the patient come to us late, for a three year stay at $3.50 cost per day, the cost would be $3,832.50."

Dr. Graves had said in his letter of resignation addressed to the Board that the group's decision to spend $2,000,000 remodeling the Mt. Pleasant hospital, instead of building an intensive treatment center, was the event that caused him to seek a position elsewhere.

On December 1, **Dr. L. B. Amick** ended a three-month series of stays in hospitals in Sac City, Des Moines and Rochester which a cardiac ailment had made necessary. He is resuming practice, spending a few hours at his office each afternoon.

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physician member of the Polk County Sanity Commission and looking back over the 36 years that he has been a part of that group, **Dr. A. S. Price,** of Des Moines, a Life Member of the Iowa State Medical Society, commented that in late years the job has made considerable demands upon his time. The Commission has dealt with 250 or 300 cases per year recently.

Dr. Gwilym S. Lodwick, an associate professor of radiology at the SUI College of Medicine and, until recently, chief of the radiologic service at the Iowa City V-A Hospital, will become a professor of radiology and chairman of the Department of Radiology at the University of Missouri Medical School on July 1. He is a 1943 medical graduate of SUI and a diplomate of the American Board of Radiology.

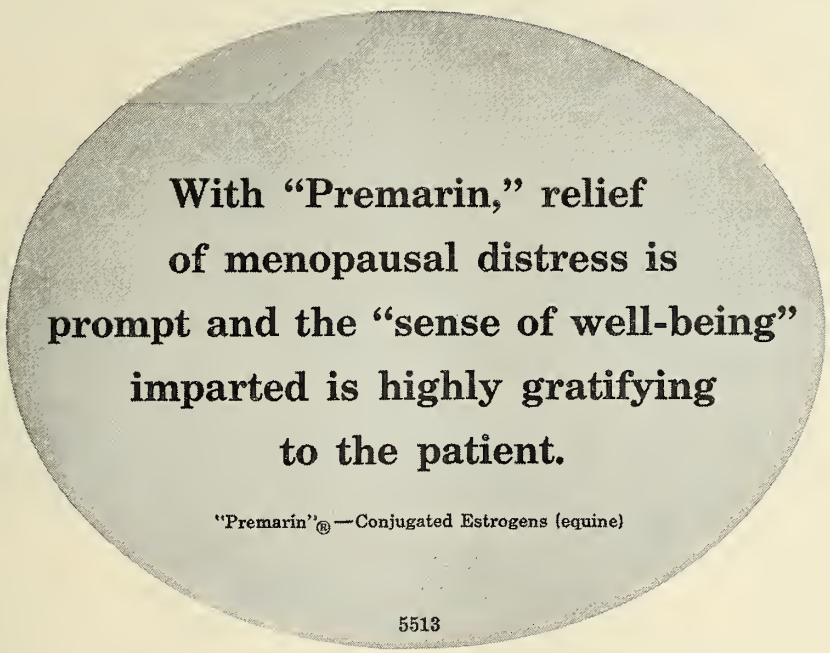
Dr. John S. Walsh has assumed the duties of chief medical officer at the V-A Domiciliary in Clinton, following his transfer there from the V-A Center at Hot Springs, South Dakota. He holds an M.D. degree from Harvard.

Dr. A. E. Berry has joined **Dr. George S. Atkinson** in EENT practice at Oskaloosa. A 1935 graduate of the University of Arkansas School of Medicine, Dr. Berry received his specialty training at the Metropolitan Hospital in New York City, and subsequently has served as a consultant for the New York City Board of Health and the New Jersey State Commission for the Blind. The two men had been medical school classmates, and when they met and renewed their acquaintance at a meeting of the Academy of Ophthalmology in Chicago a few months ago, they decided that they would like to practice together.

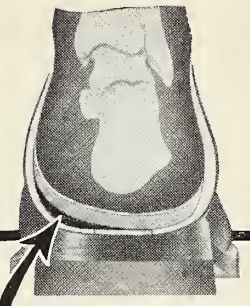
Drs. C. M. Zukerman and **B. R. Goldman** moved their offices to a section of a new single-story building at 2940 Brady Street, Davenport, on January 1. The structure also houses the offices of an insurance company.

Dr. Ross King recently occupied a new clinic building in Clinton.

Dr. Arthur E. Crew, of Marion, a Life Member of the Iowa State Medical Society, though he still practices medicine part time, is achieving considerable prominence as a chess player. Last August in the Los Angeles Times, and late in November in the Milwaukee Sentinel he was pictured participating in championship contests. His proficiency is indicated by the fact that he won three out of seven contests in the latter of those series. His second hobby is crocheting, and he has



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Dr. and Mrs. Crew left on about December 15 for Palm Beach, Florida, where they will spend some time at a studio bungalow that his son-in-law and daughter have put at their disposal.

One of the physicians who attended the first radioisotope clinic in the Midwest, at the Emporia laboratories of the University of Kansas in mid-November, was **Dr. Russell W. Blanchard,** of Council Bluffs. The clinic is composed of nine two-day sessions over a 16-week period. The only other such courses are at Oak Ridge, Tennessee, and at Columbia University.

Dr. Louis Goldberg, an obstetrician and gynecologist, has purchased the northwest corner lot at Ingersoll Avenue and 40th Street, Des Moines, with the intention, presumably, of building an office for himself there. But he has told the press that he has no immediate plans for doing so.

Story County doctors now have a peritoneoscope, thanks to the Van Vlack memorial fund and the Story County Chapter of the American Cancer Society. The instrument is useful in the diagnosis of intra-abdominal diseases.

Dr. Elwood Buchman, of Iowa City, was elected to the Board of Governors of the American College of Gastroenterology at the organization's annual meeting in Chicago recently.

At its December meeting, the Woodbury County Medical Society presented a very fine shotgun to **Dr. Allen C. Starry,** a pathologist who is now retired, as a token of appreciation for the fine work he did while in active practice in Sioux City.

Dr. A. R. Abbott, an anesthetist, has associated himself with the McFarland Clinic at Ames.

Dr. Robert Hardin, of the Department of Internal Medicine at SUI, has received a grant from the National Institutes of Health to help finance his study of the pathological physiology of diabetes in juveniles.

Dr. Raymond F. Sheets, of the Department of Internal Medicine at SUI, has been appointed to the Council on Undergraduate Medical Education of the American College of Chest Physicians, and has been made an associate editor of the journal DISEASES OF THE CHEST.

Drs. Elmer DeGowin, R. F. Sheets, H. E. Hamilton and **J. R. Carter,** all of SUI, have published an article entitled "Deficit of Prothrombin and Accelerator Globulin in Man from Prolonged Excessive Feeding of Methionine" in the TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. The bibliographical reference is 69:118-125, 1955.

In the November 29 issue of LANCET (II:919-921), **Dr. J. MacLean Smith,** a new member of the staff in internal medicine at SUI, has published an article entitled "Marginal Punched Cards: Their Usefulness in Medical Practice."

On November 17, **Dr. Lewis E. January,** of the Department of Internal Medicine at SUI, addressed the Fall Scientific Conference of the Nebraska Heart Association at Omaha on "The Surgical Treatment of Valvular Heart Disease." Dr. January has been elected to the Board of Directors of the American Heart Association.

In the September 3 issue of J.A.M.A. (159:26-27), **Dr. John B. Wild,** of SUI, published an article entitled "Mechanical Drainage of Massive Edema."

The Winneshiek County Tuberculosis and Health Association has pledged $5,000 to the support of the Clinical Pulmonary Function Laboratory to further the research of **Dr. Paul M. Seebohm,** of SUI. The money is to be paid $1,000 per year for the next five years, and is given in honor of **Dr. Felix Hennessey,** of Calmar, the immediate past president of the organization.

Dr. William J. Morrissey has moved to his new office building at 3828 Ingersoll Avenue, Des Moines, and has announced that henceforth he will limit his practice to the diagnosis and treatment of internal diseases.

Dr. William B. Bean, head of the Department of Internal Medicine at the SUI College of Medicine, was guest teacher at Georgetown University Medical Center, in Washington, D.C., recently.

Dr. J. Richard Utne associated himself with **Drs. H. W.** and **P. W. Morgan** in the practice of radiology at Mason City on January 1. Dr. Utne recently completed his specialty training at the Mayo Clinic.



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Several members of the staff of the SUI College of Medicine addressed the Iowa Clinical Society's meeting in Iowa City on December 3. **Dr. A. L. Sahs** spoke on "Problems in Lymphocytic Meningitis;" **Dr. C. E. Radcliffe** discussed "Age Factor in Cold Tolerance"; **Dr. John Middlebrook** spoke on "Thalassemia in Iowa"; **Dr. George N. Bedell** spoke on "Plethysmographic Determination of Thoracic and Abdominal Gas Volume"; **Dr. R. G. Carney** lectured about "Solutar Ointment"; and **Dr. E. O. Theilen** spoke on "Acclimatization to High Altitude in Peru." Following the scientific program, there was a dinner and a business meeting at the Hotel Jefferson.

In cooperation with **Waburn S. Jeter, Ph.D.,** assistant professor of bacteriology, **Michael Bonfiglio, M.D.,** assistant professor of orthopedic surgery at SUI, is conducting studies on animals in an attempt to discover whether an immunity can be created that will permit transplantation of skin. If the experiments are successful, it is possible that skin and bone banks can be created for use following disasters.

Dr. Robert N. Larimer, of Sioux City, was made president-elect of the North Central Medical Conference at the group's annual meeting in St. Paul on November 20.

Dr. Elwood P. Russell, Burlington surgeon, has been honored by his home town, Oakville. By action of the town council, the name of Oakville's principal street has been changed from Main Street to Russell Street. A dedicatory program is to be held.

Dr. Ralph H. Heeren, deputy commissioner of health and director of the Division of Communicable Diseases of the Iowa State Department of Health, told the press on December 14 that the virus which caused two-to-seven-day illnesses for at least 200 persons in the Marshalltown area within about 30 days last summer has been identified as a member of the Coxsackie group. He said that the U.S.P.H.S. is still studying the outbreak in search of a serum to combat the disease.

Dr. Walter M. Kirkendall, of SUI and the V-A Hospital at Iowa City, has been elected to the Council of the Midwest Section of the American Federation for Clinical Research.

SUI has received a teaching grant of approximately $19,000 to assist it in the establishment of a training course for rehabilitation counselors. The training will be begun during the second semester this year and will lead to a master's degree in rehabilitation counseling.

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SECTIONAL MEETING OF A.C.S. AT MILWAUKEE

Handling of mass casualties will be one of the important subjects discussed by panels of experts at the Sectional Meeting of the American College of Surgeons in Milwaukee, February 27-29, 1956. All members of the medical profession are invited to attend.

Other topics to be considered are fractures in children, hypothermia in cardiac and general surgery, carcinoma of the prostate, tumors of the thyroid, cancer of the colon, intestinal obstruction, problems in operability, endometriosis, repair of nasal defects and biliary tract surgery. Special hospital clinics will be offered on two mornings of this meeting. Medical motion pictures and cine clinics will be included in the program.

SIX-DAY COURSE FOR G-P'S AT DENVER

On January 16-21, the University of Colorado College of Medicine will conduct a postgraduate course for general practitioners in Denver. It will constitute a review of highlights and new developments in medicine, pediatrics, surgery, psychiatry and psychosomatic medicine, obstetrics and gynecology, and fluid and electrolyte balance, one day being devoted to each of them. The guest lecturers will be W. D. Snively, Jr., M.D., and Michael J. Sweeney, M.D., medical director and associate medical director, respectively, of Mead Johnson and Company, Evansville, Indiana.

The University of Colorado warns that since there is a hotel shortage in Denver and since the 30th Annual National Western Stock Show—Horse Show—Rodeo is to be held during the same week as the G-P's short course, visitors who plan to attend should make their reservations early.

AMERICAN ACADEMY OF ALLERGY

More than 700 physicians are expected to attend the Twelfth Annual Meeting of the American Academy of Allergy, February 6-8, at the Chase Hotel, St. Louis. The Association of Allergists of Mycological Investigations will also conduct a scientific meeting on Sunday morning, February 5. There is no registration fee for any of the sessions, and guests will be welcomed.

Over 25 papers will be presented. Among the speakers will be Dr. Charles A. Janeway, of Harvard; Drs. H. N. Eisen and C. V. Moore, of Washington University, St. Louis; Dr. Sidney Raffel, of Stanford; and Dr. Irving Kerlan, chief of the Research and Reference Branch of the federal Food and Drug Administration.

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(Seattle, Washington) .....Lt. Col., U.S.N.R.
Berg, J. W., Ames.....
Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, USNR
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego,
Calif.) .....Lt.(j.g.), U.S.N.R.
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(Orlando, Florida) .....Capt., U.S.A.F.
Davidson, M. C., Emmetsburg
(El Paso, Tex.) .....Col., A.U.S.
Day, R. T., Hampton
(Randolph Air Force Base, Texas) .....U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Dieckman, M. R., Grundy Center
(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
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(Laredo AFB, Texas) .....Capt., USAF
Ehmke, Bruce C., Iowa City
(Brooke Army Med. Ctr., Ft. Sam Houston,
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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI FEBRUARY, 1956 No. 2

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Scientific Articles

Malignancy Survival Studies in Scott County

ATLEE B. HENDRICKS, M.D.

DAVENPORT

In 1954 the Scott County Medical Society, cooperating with the local chapter of the American Cancer Society, Iowa Division, began a critical survey of results in the treatment of malignant diseases by Scott County physicians. The purpose of the survey was threefold: (1) to provide a means for comparing overall local results with overall national ones; (2) to facilitate a comparison of local results in treating the different types of malignancies so as to single out the types in which improvement can be achieved and should be expected; and (3) provided that the necessary funds can be secured, to determine the advisability of setting up a cancer clinic under the sponsorship of the State Department of Health.

Because it began with an assembling of statistics on malignancies first diagnosed in 1948, 1949 and 1950, the survey immediately began providing statistics from which three-year survival rates could be calculated. The response to the Society's requests for information has been most gratifying, and additional data are being secured so that five-year survival rates can be computed in 1957.

The records of St. Luke's Hospital and Mercy Hospital, Davenport, provided much of the material for the survey, and a form that was sent to each physician who had treated a patient with a malignancy requesting additional information. First, the doctor was asked whether the patient was living or dead. If the patient had died, the doctor was asked to supply the date of his death; if the patient was alive, the doctor was asked whether or not he still had the disease. Because the physicians cooperated perfectly, the "lost contact" group was held to a minimum.

The physicians who performed the surgery represent all types and lengths of surgical training and experience, varying from internship training to board certification and lengthy, specialized experience.

CARCINOMA OF THE BREAST

A discussion of carcinoma of the breast must be predicated on the reader's having an understanding of the clinical and pathologic variations in the severity of the disease. Portmann and Graham[1] have used the term *stage*, in contradistinction to the term *grade* which is employed in reporting the results of microscopic study. *Stage I* designates a localized and movable tumor in the breast with no regional node and no skin involvements. *Stage II* designates a localized and movable tumor in the breast involving a few lymph nodes, but with no metastasis and with no skin involvement. *Stage III* designates a fixed, infiltrating breast tumor, edematous and brawny induration of the skin, and many axillary lymph node metastases, but with no clinical or roentgenologic evidence of more remote metastases. *Stage IV* designates a fixed, infiltrating breast tumor, involvement of skin, many axillary lymph node metastases, and widespread metastases that are evident either clinically or roentgenologically.

A roentgenologic bone survey and a chest film are mandatory preoperatively before staging can be adequately estimated.

As regards malignancies of the first two stages, the Scott County survey shows three-year survival rates substantially poorer than the national five-year ones (Table 1). But though the rates presented here lead one to conclude that Scott County

physicians fell short of achieving an enviable record in treating early breast cancers (the national average survival for patients of all stages who received no treatment whatsoever being 39 months), one should take into account the fact that these local rates are based upon no more than 24 cases, and the possibility that metastases were overlooked in some instances with the result that advanced cases were mistakenly classified as early ones. Further, the total three-year survival percentage for breast cancer patients in Scott County exceeds the total five-year national rate in spite of the fact that the preponderance of Scott County cases fell into Stages III and IV. Because at the present time there is relatively little that can be done to prolong the lives of women whose breast cancers have progressed to Stage III or Stage IV, the local doctors can take credit neither for the relatively high 3-year survival rates of those ones of their patients, nor for the 50 per cent overall rate. Indeed, the figures presented in Table 1 are significant almost solely in that they call attention to a serious need, locally, for increased emphasis upon early diagnosis and treatment.

TABLE 1
CARCINOMA OF THE BREAST

Stage	*Total Cases*	*Survivors After 3 Yrs.**	*% 3-Yr. Survival*	*% Living 3 Yrs. Without Disease*	*National 5-Yr. Survival %*
Stage I	21	16 (3)	76	62	85
Stage II	3	1	33	33	60
Stage III ...	42	21 (6)	50	30	25
Stage IV ...	10	1 (1)	10	0	5
TOTAL	78	39 (10)	50	57	43

The surgical treatment in these cases consisted of three simple mastectomies and 58 radical mastectomies. Of the simple mastectomies, one was Stage I and two were Stage III. In the latter two, excision of the tumor mass was followed by x-ray therapy. After three years, one of the patients is living with disease and one is living without disease. Of the radical mastectomy group, 14 were in Stage I, three in Stage II and 41 in Stage III. There were no Stage IV patients operated upon or given x-ray therapy, but there is one living with disease six years after the establishment of the diagnosis.

Surgical therapy in carcinoma of the breast is in a state of uncertainty. Pearson has reported on 211 patients who had cancer of the breast operated on by 99 physicians with varied sorts of training in surgery. Though those cases were not classified according to stages, it is clear that 61 patients had only simple mastectomies, 52 had modified radical mastectomies and 98 had radical mastectomies. The mean survival rates were 5.2, 4.9 and 4.85 years, respectively. Pearson has concluded that the acceptable surgery for this disease is anything but standardized.[2]

Byrd and Conerly, reporting recently on surgical treatment at Vanderbilt University Hospital, have concluded that "we must modify our thinking concerning surgical treatment of carcinoma of the breast. The numerous inadequacies of the concept of standard radical mastectomy as the preferred treatment of operable carcinoma are becoming increasingly apparent."[3]

Case recently called the results of radical mastectomy discouraging and suggested that radical surgery actually encourages the spread of the disease.[4]

It would appear that in the last 25 years very little progress, statistically speaking, has been made in prolonging the lives of patients with this disease.

CARCINOMA OF THE CERVIX

The term *stage,* as it is used in classifying cases of carcinoma of the cervix as well as carcinoma of the breast, refers to the extent of involvement that has been indicated by clinical and pathologic study of objective evidence. *Stage 0* designates carcinoma *in situ. Stage I* designates a carcinoma strictly confined to the cervix. *Stage II* designates one that has infiltrated one or both sides of the parametrium, but has not involved the pelvic wall. The upper third of the vagina may be involved, and the endocervical tumor has spread to the corpus. *Stage III* designates a tumor that may have involved the parametrium to the pelvic wall on one or both sides. The tumor has involved the lower third of the vagina, and there are isolated metastases palpable on the pelvic wall. In *Stage IV* the tumor has involved the bladder (as indicated by cystoscopic examination or by the presence of a vesicovaginal fistula), the rectum has been invaded and there is distant spread beyond the true pelvis.

Proper grading of each case according to "stage" influences prognosis, and an intravenous urogram

TABLE 2
CARCINOMA OF THE CERVIX

Stage	*Number of Cases*	*3-Year Survivors**	*% 3-Year Survival*	*% Without Disease*	*National 5-Yr. Survival %*
Stage 0	2	2	100	100	100
Stage I	13	11 (1)	85	77	75
Stage II	10	5 (2)	50	30	50
Stage III ...	4	0	0	0	20
Stage IV ...	4	0	0	0	5
TOTAL	33	18 (3)	55	45	—

In addition to the above, there was one case of cancer of the cervical stump, treated with radium, living four years after diagnosis.

* The figures enclosed in parentheses represent patients living with disease.

is desirable, particularly in the less advanced cases where the presence or absence of minor obstructions of a ureter may help determine whether the malignancy is to be called Stage I or Stage II.

In the period covered by the survey, 1948 through 1950, the diagnosis of carcinoma of the cervix was made in 33 cases. The results of treatment in Stages 0 and I were very gratifying. The three-year survival rates without evidence of disease are favorable. However, only two of 18 cases that were classified as Stages II, III or IV survived three years without evidence of disease (Table 2).

Those cases were treated with x-ray, radium and surgery. One case in Stage 0 had surgery alone, but the other such case had radium followed by x-ray and then surgery. In Stage I, radium alone was given to five cases; eight cases had x-ray plus radium; and two had surgery in addition to x-ray and radium. In Stage II, one patient had x-ray therapy alone, and two had surgery plus the radium and x-ray program. Of the four cases in Stage III, one had radium alone, two had radium and x-ray, and one had surgery plus x-ray and radium. The cases in Stage IV were beyond help when they presented themselves for therapy.

CARCINOMA OF THE UTERUS

There were 21 cases of carcinoma of the uterus diagnosed, and at the time of the three-year survival survey, 14 (two-thirds) were living, all but one of them free from disease. The cases and types of therapy are shown in Table 3. The three-year survival rate compares satisfactorily with the national five-year one, but a review in two more years is likely to reveal a sizeable reduction in the numbers of survivors.

HEMATOPOIETIC MALIGNANT NEOPLASM

The group of hematopoietic malignant neoplasms presented in Table 4 consists of 49 cases broken into arbitrary categories. The results are discouraging, for at the end of three years, 45 out of 49 patients are shown to have died. These people were first seen before nitrogen mustard and some of the other cytolytic compounds had become available for general use, and they were treated by the methods that were conventional at that time. Subsequent surveys may show an improvement reflecting the use of improved treatment technics.

CARCINOMA OF THE APPENDIX, COLON AND ANUS

The distribution of the 106 cases of carcinoma of the appendix, colon and anus diagnosed in Scott County during the survey period and summarized in Table 5 closely parallels the incidences of tumors in those various locations that have been reported in the literature. At the time of diagnosis, 23 of them were inoperable, and of the other 86, there were 70 living at the end of one year, 50 at the end of two years and 39 at the end of three years.

The therapeutic trend seems to be toward more and more radical surgery, and it is anticipated that subsequent surveys will show increasingly favorable results.

CARCINOMA OF THE ESOPHAGUS, STOMACH AND SMALL BOWEL

There were 26 cases of carcinoma of the esophagus, stomach and small bowel. Two were primary carcinomas of the small bowel, a rather unusual type of lesion. One of these resulted in death within the first year after surgery, and one in the second. Both cases of carcinoma of the esophagus died within the first year. Carcinoma of the stomach is still a dreaded malignancy, but all of the five

TABLE 3

CARCINOMA OF THE UTERUS

Therapy	*Total Cases*	*3-Yr. Survivors*	*% 3-Yr. Survival*	*National 5-Yr. Survival*
None	3	0	0	
Surgery	3	3	100	65
X-ray and Surgery	11	8 (1)	73	85
X-ray and Radium	4	3	75	65
TOTAL	21	14 (1)	66.7	

TABLE 4

CANCER OF THE HEMATOPOIETIC SYSTEM

	Total Cases	*Died Within* ½ Yr.	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	*Living* After 5 Yrs.
Lymphatic Leukemia	14	9	1	3	1	0	0
Myelogenous Leukemia	9	5	3	1	0	0	0
Monocytic Leukemia	2	2	0	0	0	0	0
Lymphosarcoma	7	6	0	1	0	0	0
Hodgkin's Disease	8	4	1	1	0	1	1
G-F-L Blastoma	2	1	1	0	0	0	0
Reticulum Cell Sarcoma	1	1	0	0	0	0	0
Polycythemia Vera	5	1	2	0	0	1	1
Multiple Myeloma	1	1	0	0	0	0	0
TOTAL	49	30	8	6	1	2	2

TABLE 5

CARCINOMA OF THE APPENDIX, COLON AND ANUS

	Total Cases	*Per Cent of Cases*	*Survivals* 1 Yr. No.	%	2 Yrs. No.	%	3 Yrs. No.	%	*Inoperables* No.	%
Appendix and Ascending Colon	4	1.8	2	50	2	50	1	25	2	50
Transverse Colon	9	8.5	7	78	4	44	3	33	1	11
Descending Colon	5	4.7	3	60	3	60	3	60	1	20
Sigmoid Colon	40	37.7	20	50	12	30	6	15	12	30
Rectum	46	43.4	36	78	28	61	25	54+	7	15
Anus	2	1.9	2	100	1	50	1	50	0	0
TOTAL	106	100.0	70	66	50	47	39	37	23	21+

TABLE 6

CARCINOMA OF THE LUNG

Histology	Total Cases	Operable	Inoperable	1 Yr. Survivals
Squamous Cell (Bronchogenic)	9	2	7	0
Adenocarcinoma	1	0	1	0
Alveolar Cell	1	0	1	0
TOTALS	11	2	9	0

In addition, there were 22 cases of so-called clinical carcinoma of the lung. Of them, one survived one year and three survived two years.

TABLE 7

CARCINOMA OF THE KIDNEYS AND BLADDER

	Total Cases	Survivals 1 Yr. No.	%	2 Yrs. No.	%	3 Yrs. No.	%
Adenocarcinoma of the of the Kidney	20	13	65	10	50	8	40
Transitional Cell Cancer of the Kidney	2	1	50	1	50	1	50
Wilms's Tumor	1	1	100	1	100	1	100
Transitional Cell Carcinoma of Bladder	55	37	67	27	49	17	31

In addition to the above, there were 52 cases not included in the survey because the diagnoses had been unconfirmed, because contact had been lost, because they had originated before the start of the survey period, or for other reasons.

TABLE 8

CANCER OF THE REPRODUCTIVE SYSTEMS

(Ovaries, Fallopian tubes, vagina and vulva in the female; seminal vesicles, testes and prostate in the male.)

	Total Cases	Survivals 1 Year No.	%	3 Years No.	%
Teratocarcinoma of the Testes	1	1	100	1	100
Squamous Cell Carcinoma of Vulva	2	1	50	1	50
Adenocarcinoma of the Ovary	19	11	58	6	31
Adenocarcinoma of the Prostate	31	21	68	14	45
TOTALS	53	34	64	22	41

In addition to the above, there were 62 cases not included in the survey because the diagnoses had not been confirmed pathologically, because contact had been lost, because the operations had been performed elsewhere, or because they had originated before the start of the survey period.

TABLE 9

	Total Cases	3-Yr. Survivals No.	%
Carcinoma of the Tongue	5	5	100
Lip	4	3	75
Parotid (mixed)	5	4	80
Floor of Mouth	1	1	100
Palate	1	1	100
(20 cases excluded for reasons previously enumerated)			
Gliomata of Brain	10	1	10
Sarcoma of Eye	2	1	50
(16 cases excluded for reasons previously enumerated)			
Carcinoma of the Pharynx	1	0	0
Thyroid	1	1	100
(10 cases excluded for reasons previously enumerated)			
Sarcomata of the Bone and Connective Tissue	7	2	30
(11 cases excluded for reasons previously enumerated)			

Scott County stomach cancer patients who lived two years were still living at the end of three.

CARCINOMA OF THE PANCREAS, LIVER AND BILIARY SYSTEM

Malignancies of the pancreas, liver and biliary system are difficult to detect in the early stages when effective treatment is possible. There are no definite diagnostic steps available for general use, and routine roentgenograms fail to outline these organs directly. Shadows that represent tumor masses pressing upon normal tissue are visible only when the tumor has metastasized extensively. Of the 35 Scott County cases, two lived one year, and one is still living at the end of four years.

CARCINOMA OF THE LUNG

This survey shows that carcinoma of the lung deserves to be the most discussed type of malignancy, as indeed it actually is. Of the 11 cases diagnosed, only two were operable and none survived one year. The diagnosis in each instance was definitely established from pathologic material (Table 6). There were 22 additional cases in which carcinoma of the lung was suspected on the basis of roentgenologic evidence, but those were excluded from the survey. Three of those patients survived two years, and one survived one year.

MISCELLANEOUS

Tables 7, 8 and 9 show the statistics compiled on carcinoma of the genito-urinary tract and a group of 37 cases of brain tumors, sarcoma, carcinoma of the tongue, lip, etc. Treatments for malignancies of these sorts are reasonably well standardized,

TABLE 10

SUMMARY

	Total Cases	3 Yr. Survivals No.	%
Stomach	22	5	26
Colon	58 (16 inoperable)	13	22
Rectum	46 (7 inoperable)	25	54
Lung	11 (9 inoperable)	0	0
Breast			
Stages I and II	24	17	70
Stages III and IV	52	22	42
	76	39	51
Cervix			
Stages 0, I and II	25	18	72
Stages III and IV	8	0	0
	33	18	54
Endometrium	18	14	77
Ovary	19	6	31
Prostate	31	14	45
Biliary System	17	1	—
Pancreas	18	0	0

and the tabulations of results are self-explanatory. Table 10 is a composite summary of three-year survivals of the most common of the malignancies surveyed.

COMMENT

Results from treatment of malignancies everywhere can be improved by early diagnosis. Hitchcock and Aust[5] recently have reported on six and a half years' operation of the University of Minnesota's Cancer Detection Center. That clinic discovered 147 cases by means of systematized workups, there being symptoms in no more than 79 (slightly more than half) of them.

Of 84 asymptomatic cases of cancer found by the U. of M. Cancer Detection Center during a period of three years, 71 (84 per cent) were living after three years. But out of the 140 patients who exhibited symptoms, only 94 (68 per cent) were living after three years.

During the time of the study that is being reported on in this paper, the physicians of Scott County treated 520 patients, of whom 186 (35.8 per cent) were living after three years.

CONCLUSIONS

1. The statistics reported in this paper concern the work of physicians having varying types and amounts of training. For that reason, they should not be compared unprovisionally with those reported by specialized centers.

2. The survival rate can be improved by diagnosis in the symptomatic phase of the disease.

3. Alertness and thoroughness on the part of each and every physician will result in the detection of more cancers in the asymptomatic and readily curable phase.

4. Cancer detection centers often diagnose tumors in the asymptomatic phase.

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Centennial Meeting of the Scott County Medical Society

BLACKHAWK HOTEL, DAVENPORT, IOWA

March 21, 1956

12:30 p.m. Luncheon (Doctors only)

2:00 p.m. "Recent Setbacks in Medicine"
William B. Bean, M.D., professor and head of the Department of Internal Medicine, SUI College of Medicine

2:50 p.m. "Spread of Tumor"
William Boyd, M.D., emeritus professor of pathology, University of Toronto, and visiting professor in pathology, University of Alabama

3:45 p.m. "Recent Progress in Stress Research"
André Robert, M.D., research scientist, Upjohn Company, and formerly assistant professor, Institute of Experimental Medicine and Surgery, University of Montreal

5:45 p.m. Social Hour, Empire Room

7:00 p.m. Banquet, Gold Room
"Words of Welcome"
H. M. Hurevitz, M.D., president of the Scott County Medical Society
"Greetings"
Lonnie A. Coffin, M.D., president of the Iowa State Medical Society
Address
Elmer Hess, M.D., president of the American Medical Association
"History of Scott County Medicine"
Walter L. Bierring, M.D., past president of the American Medical Association and of the Iowa State Medical Society

All interested physicians are invited to this meeting. They and their wives will be guests of the Scott County Medical Society. Physicians are asked to give advance notice of their intention to attend to Dr. James F. Bishop, 1818 Harrison Street, Davenport.

Sigmoido-Rectal Intussusception

JAMES F. BISHOP, M.D.

DAVENPORT

The word *intussusception* brings to mind the classical picture of an infant or young child suddenly and urgently ill, with paroxysms of severe abdominal pain, with vomiting, with the passage of bloody mucus from the bowel, and, usually, with a palpable abdominal mass. Here, catastrophe is imminent, and most authorities agree that prompt surgical attack is essential.

But there is another form of bowel invagination which, though much less dramatic and dangerous, is often quite as frightening to the child's parents. It consists of a telescoping of the mobile sigmoid through the fixed, if vaguely defined, region of the recto-sigmoid, as distinguished from the mucosal prolapse which is frequently seen in the lower bowel. The lesion is entitled to receive attention only when it has produced symptoms, and though by surveying a large number of infants one presumably could learn how frequently the abnormality is present but asymptomatic, such an investigation would serve no useful purpose.

The observations to be contained in this report are based upon a series of nine cases, six of them in infants less than one year of age and the others in children ranging from 20 months to four years old. All were adequately nourished, were apparently developing normally and were free from obviously harmful effects of the lesion.

SYMPTOMS

The commonest symptoms of this type of intussusception are pain and/or the passage of bright blood or bloody mucus. Either can be present without the other. The bloody mucus is seldom plentiful, and though the blood usually is bright red, it sometimes is partially clotted and appears on the outside of the stool.

The other symptom, pain, is less common as the presenting complaint, but when it occurs it may be quite severe and obstructive. The child gives evidence of the pain by crying and by drawing up his knees prior to the passage of a stool. Afterward, the pain seems to subside quite promptly, though the consistency of the fecal matter can have had no part in causing the difficulty. Indeed it is sometimes soft or medium, rather than hard.

Proctoscopy brings the invagination into direct vision. The infant almost invariably yells in outrage at the restraint incident to proctoscopy, and the associated straining precipitates the intussusception. When he takes a breath for his next protest, the physician can reduce the abnormality by applying pressure upon the inflating bulb, but with the onset of the next strain, the entering layer can be seen descending precipitously once again into its sheath, and sometimes even into the barrel of the proctoscope. At times small, scattered areas of denudation in the mucosa of the recto-sigmoid and upper rectum, the probable sources of the bleeding, are seen to ooze small amounts of blood.

POSSIBLE CAUSES

Perhaps the abnormality occurs because the support of the mobile sigmoid hasn't attained sufficient strength to do its job. But one is tempted to wonder whether the infant's bowel may not still be too long for his abdomen, since the condition corrects itself with the passage of time. It may be that as the child grows older, his trunk lengthens at a more rapid rate, thereby taking up the slack in his bowel and its mesentery.

Aside from fissures and other areas of injury about the anus, a colonic or rectal polyp is the other lesion most likely to produce blood and bloody mucus. Of course barium enema and air film should be resorted to when there is suspicion of such a neoplasm.

Treatment for sigmoido-rectal intussusception consists largely of reassurances to the anxious parents that the infant will "outgrow" his trouble. Because of pain, it is occasionally necessary for the physician to reduce the intussusception with a small tap-water enema. In an especially stubborn instance, the infant may be held in a partially inverted position, so that gravity can augment the gentle hydrostatic pressure of the enema.

The symptoms apparently persist for only a few weeks, and then subside completely. Five youngsters were called back for observation from three to five years after the first examination, and in none was there any residual evidence of the invagination.

SUMMARY

Intussusception of the lower sigmoid through the recto-sigmoid is occasionally a cause for cramping abdominal pain in an infant or young child and for his passing blood or bloody mucus per rectum.

The lesion apparently is self-limited, and one needs only to recognize it for what it is and to reassure the youngster's anxious parents.

Systemic Reticuloendotheliosis

A Case Report

J. L. KEHOE, M.D., R. W. McCONNELL, M.D., AND W. S. PHETEPLACE, M.D.

DAVENPORT

THE NONLIPID reticuloendothelioses consist of eosinophilic granuloma, the Hand-Schuller-Christian syndrome and the Letterer-Siwe syndrome. Originally these three conditions were thought to be separate disease entities, but at present they are considered as no more than different manifestations of the same disease process. The etiology of these disorders is unknown, for though infection has been suspected, it has never been proved. There is no demonstrable lipid metabolic error. In the Letterer-Siwe syndrome, neoplasia may explain the rapidly fatal course.

In all three conditions, granulomatous lesions are present. In eosinophilic granuloma, the lesion is composed chiefly of eosinophils and monocytes, and it may appear in one or several sites within the skeletal system. The lesion in the Hand-Schuller-Christian disease consists of histiocytes, eosinophils, lymphocytes, reticulum cells, lymphoblasts and fibroblasts. The sites of involvement are membranous bones, viscera, skin, and lymphatic and hematopoietic systems. In the Letterer-Siwe disease, the lesion is composed chiefly of reticulum cells, monocytes and eosinophils, with occasional giant cells. In the latter type, visceral involvement, skin lesions, adenopathy, anemia and occasionally bone lesions are typical, and the disease tends to run a fulminating, malignant course. The case to be presented here demonstrates the many interrelationships among the diseases of this group.

CASE REPORT

An 11-month-old white female was admitted to the pediatric department of Mercy Hospital, Davenport, on May 11, 1953. A rash on her scalp, back and abdomen had first been noticed when she was four months old. The rash had persisted for three weeks and then had disappeared, only to reappear one month later. It then persisted and was resistant to all forms of local therapy. Two months prior to admission, she had developed an ulcerated, swollen area in the roof of her mouth which did not respond to intensive local and systemic antibiotic treatment. During three weeks before the hospitalization, marked excoriation of the vulva and perineum had been present, and the child had marked dysuria. During the early course of her illness she had run a low-grade fever.

Past medical history revealed that the child had been born normally on May 31, 1952, weighing 5 lbs. 14 oz. Her development and growth had been normal. There had been no previous illnesses.

Physical and laboratory findings. Physical examination at the time of admission revealed a chronically ill appearing child. Her height and weight were within normal range for her age. A generalized, oily, seborrheic rash was present on her scalp. A scattered hemorrhagic, papular rash was present over the rest of her body, most marked on her trunk and back (Figure 1). There was marked excoriation of the vulva and perineum. Examination of her mouth revealed ulceration of both alveolar ridges. Her liver was palpable 5 cm. below the right costal margin. There was no



Figure 1

splenomegaly. The cervical, axillary and inguinal lymph nodes were slightly enlarged.

Laboratory findings and x-ray examination. The urine was loaded with granular casts and contained many white blood cells. The specific gravity was 1.038, there was an acid reaction, there was 4+ albumin and there was 2+ acetone. A urine culture revealed E. coli organisms. The Kahn test was negative, and the Mantoux test was negative. The red blood count was 4,160,000 per cu. mm., the hemoglobin was 10.9 Gm., the white blood count was 14,880, and the Schilling differential showed 5 per cent stabs, 61 per cent segmented leukocytes, 30 per cent lymphocytes and 4 per cent monocytes. The bone marrow revealed no specific diagnostic findings. A punch biopsy of at least one of the skin lesions was obtained, and sections showed an intradermal vesicle filled with dessicated polynuclear exudate. The base of the vesicle was composed of dermis which showed moderate infiltration with large pleomorphic histiocytic cells having abundant pink-staining cytoplasm and irregular, lobulated or oval vesicular nuclei. In some instances, the cytoplasm showed vacuolization, but there was no evidence of the hemosiderin accumulation which was later evident in the autopsy tissues. It was felt that this skin lesion was consistent with malignant reticuloendotheliosis of the Letterer-Siwe type. A bone survey revealed a rounded area of radiolucency in the right parietal bone. The remainder of the skeletal system revealed no abnormality. The x-ray examination of the chest revealed no pulmonary or cardiac disease.

Clinical course. The patient was discharged from the hospital on May 21, 1953. She was seen at University Hospitals, Iowa City, on May 23, 1953, where the diagnosis of reticuloendothelial granuloma was reaffirmed. For the next month she ran a gradually increasing fever and developed marked pallor. She was readmitted to Mercy Hospital on July 6, 1953. Physical examination revealed the previously described skin lesions, marked pallor and an enlarged liver and spleen. The oral lesions were unchanged. The red blood count was 1,600,000, the hemoglobin was 4.8 Gm., and the white blood count was 6,300, with a normal differential. Progress radiographic studies revealed no change in the bone lesions. Treatment at that time consisted of multiple blood transfusions. ACTH and antibiotics were started empirically, but in spite of intensive antibiotic therapy, the patient continued to run a febrile course. Repeated blood cultures were negative, including special cultures for paracolon organisms. Her general condition was supported by means of multiple transfusions, and after a very stormy course of several weeks, she made sufficient improvement to be discharged, October 3, 1953, on oral dosage of cortisone.

During the ensuing five weeks at home, she did fairly well. However, the mother noted gradual swelling of the cervical lymph nodes. On November 9, 1953, the child was readmitted to Mercy Hospital with marked swelling of the cervical and inguinal lymph nodes. The liver and spleen were markedly enlarged (Figure 2). The red blood count was 1,270,000, the hemoglobin was 2.5 Gm.,



Figure 2

and the white blood count was 4,250. She was again treated in supportive fashion by means of blood transfusions, ACTH and Terramycin in appropriate dosages. A radiologic consultation was obtained with regard to irradiation therapy. A perusal of the literature revealed no encouraging results from irradiation therapy in Letterer-Siwe disease.

The child was moribund at the time when irradiation therapy was started on December 26, 1953. Initially, it was decided that the large masses of lymph nodes in both sides of her neck and in her spleen should be treated. Two hundred twenty kilovolts were applied at a target skin distance of 50 cm. to a portal 10 x 10 cm. The beam employed had a half value of 1.0 mm. of copper. From December 26, 1953 to December 31, 1953, the patient received 900 (air) roentgens directed anteriorly into the spleen and obliquely into both

the cervical chain areas. There was an excellent response in the cervical lymph nodes, and by January 21, 1954, they had almost entirely disappeared.

On December 27, 1953, the breakdown of the cervical nodes on the left was apparent. On January 2, 1954, the node was aspirated, and 50 cc. of purulent exudate was removed. Culture of this material was positive for Escherichia coli and Micrococcus pyogenes.

Because we felt that the cervical lymph nodes had responded well to irradiation therapy, we decided to continue therapy to the spleen and to add therapy to the liver and to the lesion of the posterior parietal portion of the skull. The latter lesion was treated through a 5 cm. round portal. From January 22 to February 9, 1954, the patient received 450 (air) roentgens directed laterally into the spleen, 450 (air) roentgens anteriorly into the liver and 600 (air) roentgens into the lesion in the right parietal region. There was some slight residual adenopathy in the cervical lymph node areas, and an additional 450 (air) roentgens were administered to them.

The adenopathy gradually subsided, as did the hepatosplenomegaly, following the x-ray therapy, accompanied by the general supportive care of blood and antibiotics. The patient improved sufficiently to be discharged on April 17, 1954. During the next three months at home she gained weight and, in general, progressed very well until July 28, 1954, when she developed pain and tenderness in her left clavicle. At that time, fever and malaise were again present. A generalized brownish pigmentation of the skin was then noted. Her liver and spleen were markedly enlarged. Her red blood count was 2,230,000, her hemoglobin was 7 Gm., and her white blood count was 1,000, with a differential of 43 per cent segmented leukocytes and 57 per cent monocytes. The only bony lesion that we treated was the one in the skull, for we did not feel that the patient should have further irradiation therapy when the last bone survey had shown generalized metastatic disease. In spite of intensive supportive treatment, the course this time was progressively downhill, and the patient expired on August 24, 1954. Permission for an autopsy was obtained.

Radiology. Radiographically, the skeletal lesions of the reticuloendothelioses are characterized by well defined areas of radiolucency that sometimes are responsible for a thinning or bulging of the cortex and occasionally may cause some periosteal thickening. These lesions are frequently multilocular, and many small areas may coalesce to form larger ones. It is not unusual for only one or two lesions to occur in the skull, and none elsewhere in the skeletal system. Letterer-Siwe disease is one of progressive bony involvement, with replacement of bone marrow and eventual death of the patient. The presence of patchy areas of consolidation in the lung field may occur early or late in Letterer-Siwe disease, but usually it indicates the beginning of the downhill course that these patients take.

The initial radiographic bone survey showed no abnormality except in the skull (Figure 3). There was a small, well defined, rounded area of radiolucency in the right parietal bone which was felt to be typical of the bony lesion seen in the skull in reticuloendotheliosis. The irradiation therapy listed above was administered to this lesion from January 23, to February 2, 1954. The second film in Figure 3 shows some increase in the size of this lesion of the skull prior to irradiation therapy. At the time that this second study was done, a general bone survey still showed no evidence of general skeletal involvement. The last film, on August 11, 1954, showed what appeared to be some bridging of the single large bony defect in the right parietal area, but there were multiple, small, rounded areas of radiolucency in the calvarium, and there were obvious metastatic areas about both the orbits

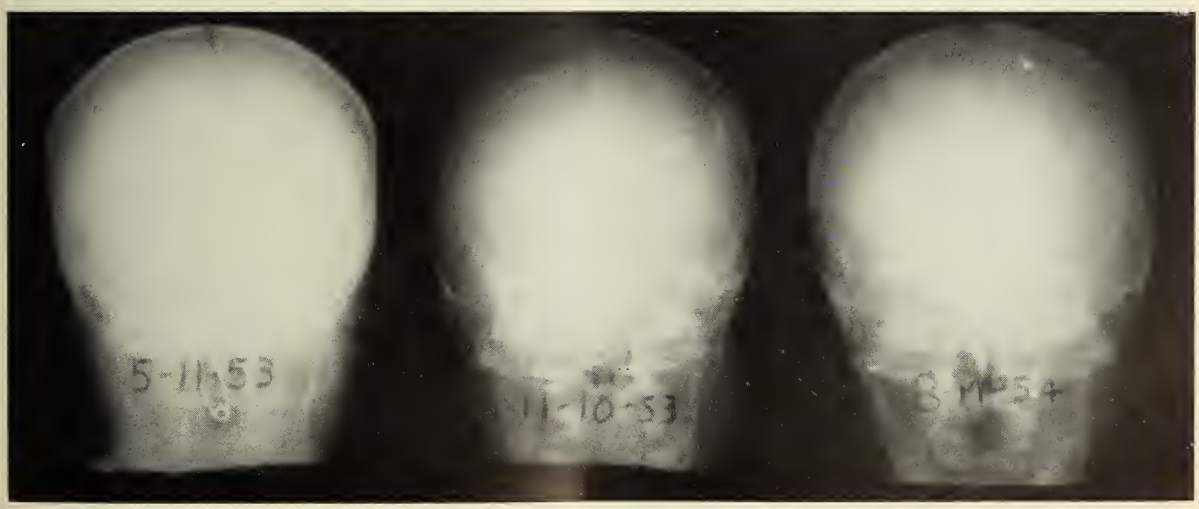


Figure 3

and in the mandible. The initial survey film of the abdomen (Figure 4) showed some enlargement of the liver and spleen. Routine radiographic studies of the chest were done at that time, but they revealed no identifiable abnormalities in the lung fields or in the mediastinal or hilar lymph nodes (Figure 5). The survey film of the abdomen two weeks before the death of the patient showed rather marked enlargement of the liver and spleen, and generalized skeletal involvement. A portion of the chest visible on this study and on the routine radiographic studies of the chest showed patchy areas of consolidation scattered throughout the lower two-thirds of the lung fields.

The lymph nodes and the skull lesions in this patient appeared to be radio-sensitive, and the most recent literature suggests that the skeletal lesions may be radio-sensitive at least for a short period of time. The difficulty in treating multiple generalized skeletal metastases with radiation therapy is obvious, and there are those who feel that irradiation-mimetic drugs such as nitrogen mustard may be the therapy of choice in combination with steroid therapy.

Autopsy. The autopsy, performed by Dr. Thomas McMullen and reviewed by Dr. Pheteplace, revealed the following pertinent findings. The subject was a cachetic white female, 2½ years of age, measuring 81 cm. from crown to heel and weighing 22 lbs. Arterial embalming had been performed. The hair was dark brown and scanty. There was a scaly eczematoid dermatitis of the scalp. The eyelids were puffy. There were numerous widely scattered petechiae and purpuric lesions of the extremities and trunk. There were multiple superficial lymph nodes palpable in the neck, axillae and groin. There was edema of the buttocks and external genitalia. The lower extremities showed no apparent edema.

Examination of the thoracic cavities, heart and lungs revealed nothing remarkable. The heart weighed 70 Gm., the left lung 105 Gm., and the right lung 125 Gm., all of which were within normal limits. The pleural surfaces showed a few scattered petechial hemorrhages. The thymus was not grossly remarkable.

Examination of the abdominal cavity revealed an estimated 100 ml. of slightly turbid, straw-colored ascitic fluid. The spleen extended 8.5 cm. below the left costal margin in the mid-axillary line, and it weighed 700 Gm., as contrasted with the normal for 2½ years of 30-50 Gm. The capsule was thickened and showed numerous adhesions. The liver extended 6.4 cm. below the costal margin at the mid-clavicular line. There were many dense fibrous adhesions on the anterior surface. The liver

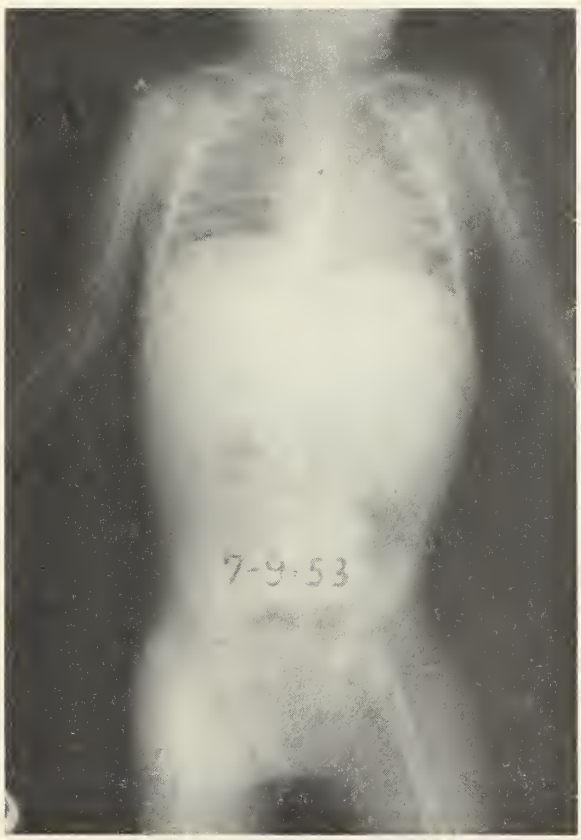


Figure 4



Figure 5

weighed 920 Gm. (normal at 2½ years being 350-450 Gm.), and was pale yellow and soft. There was no accentuation of the lobular pattern. The gastrointestinal tract, kidneys and pelvic organs were unremarkable. Most significantly, there was no apparent enlargement of the Peyer's patches. The adrenals were not weighed, but they were reported to be normal in size and gross in appearance.

There was a generalized lymphadenopathy involving especially the mediastinal, mesenteric and retroperitoneal lymph nodes. These nodes were moderately enlarged. The lymph nodes were reddish-yellow in color. No unusual gross pattern was described. The calvarium showed a poorly defined defect 1.5 cm. in diameter in the right parietal bone near the midline. There were multiple yellow plaques of the dura adjacent to the calvarium. Those in the right middle fossa were especially prominent. The tip of the petrous portion of the right temporal bone was soft. The brain weighed 880 Gm., and showed no gross lesions.

Microscopic studies. Sections of the lungs showed nodular infiltrated areas characterized by the presence of increased amounts of collagenous stroma which had obliterated the alveolar pattern. This stroma was infiltrated by lymphocytes, monocytes and other larger histiocytes with abundant pink-staining cytoplasm and moderately pleomorphic, pale vesicular nuclei. Very few mitoses were seen. Some of these larger histiocytes contained large, brown granules of pigment which were positive to the prussian blue stain. In several areas of the lung tissue at the margin of the lesion, the alveolar epithelium showed hypertrophy and had assumed a cuboidal pattern. In essentially all other areas, one could see less confluent, but nevertheless definite, fibrosis of the alveolar walls and infiltration by cells of the type that was present in the nodule. There were also some cells which were smaller, which were darkly eosinophilic and which had more hyperchromatic basophilic nuclei. Some of them had lobulated nuclei, but the majority were round or oval. The nodule described was quite vascular, and the endothelium of the small capillaries appeared immature.

The myocardium was carefully examined for evidence of similar histiocytic invasion. Some of the cells resembled those from the lung that we have just described. In the portions of the myocardium near the endocardium, there were small, nodular thickened areas characterized by an infiltration of histiocytic cells.

The several sections of the kidney that were examined showed no evidence of abnormal cellular infiltrates.

Sections of the pancreas showed no histopathologic change. The islet tissue showed no evident abnormality.

Sections of the temporal bone showed a nodular mass of rather dense collagenous tissue which in some areas was hyalinized and non-cellular. Other areas showed infiltration of pigmented histiocytes.

Sections from the duodenum revealed a prominent zone of cellular infiltration in the submucosa. There were focal areas of necrosis with polynuclear infiltration. Adjacent zones showed many lymphocytes, polynuclear cells and large ameboid cells, with abundant cytoplasm. In the areas around the zones of necrosis, the large cells previously described showed many mitotic figures. These abnormal cells had also infiltrated the muscle layers of the small intestine and were seen in the fibrous septa and in the subserosa.

Sections of lymph nodes showed obliteration of the usual follicular pattern. The sinuses were filled and ballooned by dense accumulations of large histiocytes having eosinophilic protoplasm and moderately pleomorphic oval, round or lobulated nuclei. In some areas, these cells had extended through the capsule into the adjacent fibroadipose tissue. There were small foci of mature lymphocytes which were markedly compressed by the dilated sinusoids.

Sections from the margin of the defect described in radiographic studies of the skull revealed atrophy of the cancellous bone. Many of the myeloid spaces were filled by spindle-shaped or irregularly polyhedral cells, with fairly abundant collagen deposition. In the sections prepared, there was no evidence of active osteogenesis. Sections of bone removed from the tibia and including a portion of the articular cartilage showed some areas characterized by a relative hypoplasia of the hematopoietic elements and small accumulations of the large, pale histiocytic cells previously described. Some of the histiocytes in the myeloid spaces had phagocytized large numbers of red cells.

Sections of the adrenals showed no evidence of histopathologic changes. There was no atrophy or evidence of histiocytic infiltration.

In marked contrast to the bone marrow obtained at autopsy, the original bone marrow specimens obtained early in the course of the disease showed essentially no abnormality. The sections from the vertebrae and sternum revealed a rather marked diffuse and focal scattering of large pleomorphic histiocytic cells with lobulated or oval vesicular nuclei. With the usual hematoxylin-eosin technic, these cells stain very poorly in contrast to the strong basophilic character of the remaining leukogenic and erythrogenic series. It is estimated that between 40 and 50 per cent of the available bone marrow space was occupied by these abnormal cells.

SUMMARY

A case of systemic reticuloendotheliosis demonstrating features of both the Letterer-Siwe syn-

drome and the Hand-Schuller-Christian syndrome has been presented. The remissions produced by antibiotic therapy, steroid therapy and radiation therapy, together with general supportive care, were only temporary. This case illustrates the complex interrelationship of this group of disorders and emphasizes the need for a more effective form of treatment.

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Bile Duct Cyst With Malignant Degeneration

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DAVENPORT

A BILE DUCT CYST presents a problem in diagnosis and treatment that ordinarily is resolved only at the operating table. But we have succeeded in preparing an interesting set of follow-up cholangiograms which, together with what we can tell of our experience, may contribute to the preparedness of the next surgeon who finds such a cyst.

About 200 cases of choledochal cyst have been recorded, but since a recent upsurge of interest has increased the frequency of the reports, it seems likely that the incidence is greater than might otherwise be supposed. According to Blocker *et al.*,[7] Lavenson credited Vater with finding the first one in 1723. Shallow *et al.*[35] reported and reviewed 175 authentic cases in 1943, and since then there have been a number of isolated case reports. We have attempted to list them chronologically, along with a few earlier ones that Shallow and his associates appear to have overlooked.

Drainage by enterostomy was first reported by Tsuijimuka[43] and Kambe,[24] in 1931. In Shallow's list is included a case by Fujihara,[16] and Fleming[15] is known to have performed one. Thus, Keeley was mistaken in claiming that he was himself the first surgeon (April, 1946) to treat a case by a Roux Y enterostomy, though his was the first to be reported in an American journal. From then on, the Roux-Y series seems to proceed as follows: Rogers and Priestley,[34] Archambault,[1] Strohl and Sarver,[40] Attar and Obeid (2),[3] and Shocket,[37] making a total of 11 reported cases. A loop jejunum procedure was used successfully by Duff[14] (see Shallow's list) and also by Sullivan and Dmytryk.[41] Only two cases with malignant degeneration have been reported, by Armanino,[2] in 1946, and by Irwin,[23] in 1944.

HISTORY AND PHYSICAL EXAMINATION

Mrs. R. P., age 33, was admitted to Mercy Hospital, Davenport, on January 26, 1952, because of jaundice of two weeks' duration. She was slightly nauseated at intervals, but had not vomited. She had experienced no pain, and in her own words, she "did not feel sick at all."

There was a fluctuant, non-tender mass in the right upper quadrant of her abdomen, extending to the level of the umbilicus.

This woman had been seen a number of times over a period of five years when she had no complaint of abdominal pain, indigestion or jaundice, and on the two occasions when she did have epigastric pain and indigestion (September, 1947, and January, 1949), her abdomen had been examined and no mass had been detected. X-rays taken in September, 1947, had shown a non-functioning gallbladder, but contained no shadow of a mass of any size.

Her assertion that she didn't feel sick was substantiated by the fact that she weighed 145 lbs., as compared to 138 lbs. in 1947. The remainder of her physical examination was normal.

	January 27	*January 30*
Serum bilirubin		
(a) prompt direct	3.9 mg. per cent	4.9 mg. per cent
(b) total	7.5 mg. per cent	8.4 mg. per cent
Total protein	7.1 mg. per cent	7.1 mg. per cent
(a) albumin	4.5 mg. per cent	
(b) globulin	2.6 mg. per cent	
Cholesterol	260 mg. per cent	310 mg. per cent
Urine urobilinogen	1.09 Ehrlich units	1.1 Ehrlich units
Cephalin flocculation	neg. 24-48 hours	
Sedimentation rate		74 mm. per hour
Kahn		neg.
Serum amylase		83 units
Urine	neg. except bile	
Blood count		
RBC	4,100,000	
WBC	4,700	
Hemoglobin	11.6 Gm.	

SURGERY

An operation was performed on February 4, 1952. A transverse, upper abdominal incision revealed a normal liver and a soft, easily compressed gall bladder. There was a large, tense globular mass beneath the duodenum, extending medially into the head of the pancreas and laterally beyond the edge of the duodenum. The hepatic flexure of the colon was freed, and the posterior peritoneum was incised one inch laterally to the duodenum. Further efforts to free the duodenum were abandoned because of difficult hemostasis.

The presenting mass was a thick-walled cyst extending from the hilus of the liver down to the pelvic brim and medially into the body of the pancreas, behind and above the third portion of the duodenum. There were no palpable nodes in the hilus of the liver or lesser curvature of the stomach. The portal canal was normal to palpation, and no stones, tumor or stricture of the common duct could be felt. There was no tumor at the papilla of Vater. The common duct had been obstructed by the pressure of this cystic mass from behind. There was only normal consistency in the body and tail of the pancreas.

When the transverse mesocolon was opened, the cystic mass presented a bulging contour in the curve of the duodenum. From the cyst, dark green bile was aspirated. A 2 cm. dependent incision here first transected a 5 mm. layer of normal pancreatic tissue over a tough, white, fibrous, unlined cyst wall, and then released 1500 cc. of dark bile. Fingertip examination revealed no loculation, polyp or "nubbin" within. When the right lateral border of the cyst was opened wide, it was apparent that the fingertip-size cyst originated near the left hepatic duct, from which light green bile flowed readily. The sac was smooth-walled, with no extension into the tail of the pancreas.

Excision of the sac, a procedure that would have

REPORTED CASES

No.	Surgeon	Date of Report Patient's Sex, Race* and Age	Surgical Procedure and Date of Surgery, if Reported	Result
163	Fujihara	1935 f. 13	*Roux* Y in Shallow's list[35]	Good
1-162 164-175	Shallow	1943 m. 23%	Anastomosis of cyst to duodenum, 47 cases	Mortality 58%
176	Tsujimuka	1928 adult	*Roux* Y not included by Shallow[35]	Good
177	Kambe	1928 adult	*Roux* Y not included by Shallow[35]	Good
178	Smith	1942 f. 20	Anastomosis of cyst to duodenum, 3 stage, November, 1940	Good
179	Smith	1942 f. 28	Anastomosis of cyst to duodenum, 3 stage, 1916-1917	Died
180	Gray	1942 f. 39	Anastomosis of cyst to duodenum, 1941?	Good (stormy)
181	Diebolt	1942	Not included by Shallow. The original report is unavailable to the authors.	
182	Nitsche	1942	See Shallow.[36] The original report is unavailable to the authors.	Good
183	Swartley	1943 f. 22	Anastomosis of gall bladder to duodenum, Oct. 11, 1940	Died in 1 yr.
184	Chesterman	1944 f. 29	Anastomosis of cyst to duodenum, May 30, 1941	Good (preg.)
185	Hutchins	1944 f. 6	Anastomosis of common duct to duodenum, June, 1942	Good (stormy)
186	Irwin	1944 m. 30	Anastomosis of cyst to stomach, Dec., 1941	Died (cancer)
187	Shallow	1946 f. 58	Anastomosis of cyst to duodenum, July, 1944	Good
188	Blegen	1946 f. 17	Anastomosis of cyst to duodenum, Apr., 1945	Died
189	McLaughlin	1946 Negro m. 22	Anastomosis of cyst to duodenum, Nov., 1944	Good
190	Armanino	1946 m. 17	Postmortem only	Died (cancer)
191	Kelsey	1947 f. 4	Anastomosis of cyst to doudenum, Aug., 1946	Good
192	Fleming	1947 adult?	*Roux* Y	Good (preg.)
193	Keating	1947 f. 2½ mos.	Anastomosis of cyst to jejunum, Oct., 1946	Died
194	Keeley	1948 m. 30	*Roux* Y, Apr. 10, 1946	Good (stormy)
195	Davis	1948 m. 5	Anastomosis of cyst to duodenum	Good (stormy)
196	Ripstein	1948 f. 4 mos.	Inoperable	Died
197	McLaughlin	1948 f. 27	Anastomosis of cyst to duodenum, Nov., 1944	Good
198	Berkley	1949 f. 10	Anastomosis of cyst to duodenum, Apr., 1932	Good
199	Rogers	1949 f. 52	*Roux* Y, Sept. 21, 1948	Good
200	Gilliland	1950 f. 4 mos.	Anastomosis of cyst to duodenum?	Good
201	Archambault	1950 adult	*Roux* Y, May 29, 1949	Good
202	Brummelkamp	1950 infant 4 d.	Anastomosis of cyst to stomach, 2 stage, 1947	Good
203	Sullivan	1951 m. 28	Anastomosis of cyst to jejunum, Sept., 1949	Good
204	Hertzler	1951 Negro f. 5	Anastomosis of cyst to duodenum, Mar., 1938	Good
205	Hertzler	1951 m. 1	Anastomosis of duct to duodenum, Sept., 1948	Good
206	Hertzler	1951 Negro f. 7	Anastomosis of cyst to duodenum, May, 1950	Good
207	Macpherson	1951 Negro f. 17	Cyst ruptured in labor	Died
208	Kazar	1951 infant?	Anastomosis of cyst to duodenum? 1950	Good
209	Dickinson	1952 f. 2 mos.	Anastomosis of cyst to duodenum?	Good
210	Strohl	1952 f. 24	*Roux* Y, June, 1948	Good
211	Newson	1952 f. 12	Anastomosis of cyst to antrum, Mar., 1950	Good (stormy)
212	Burgess	1953 Jap. m. 14	Anastomosis of cyst to duodenum, June, 1950	Good
213	Goldman	1953 f. 37	Anastomosis of cyst to duodenum, Feb., 1951	Good
214	Gross	1953 child	Anastomosis of cyst to duodenum, 1947?	Good
215	Gross	1953 child	Anastomosis of cyst to duodenum, 1949?	Good
216	Gross	1953 child	Anastomosis of cyst to duodenum, 1950?	Good
217	Smith	1953 m. 14 weeks	Anastomosis of cyst to duodenum, Dec., 1952	Good
218	Wrightson	1953 m. 5 weeks	Anastomosis of cyst to duodenum, Aug., 1952	Good
219	Dennison	1954 m. 5	Cyst excised, Apr., 1953	Good
220	Attar	1955 f. 18	*Roux* Y, Dec., 1952	Good
221	Attar	1955 f. 14	*Roux* Y, June, 1952	Good
222	Shocket	1955 f. 2	Anastomosis of cyst to duodenum, Aug., 1954	Good
223	Shocket	1955 m. 10	*Roux* Y, Oct. 25, 1954	Good
224	Wilson *et al.*	1956 f. 33	*Roux* Y, Feb. 4, 1952	Died after 18½ mos. (cancer)

* Presumably white unless otherwise noted.

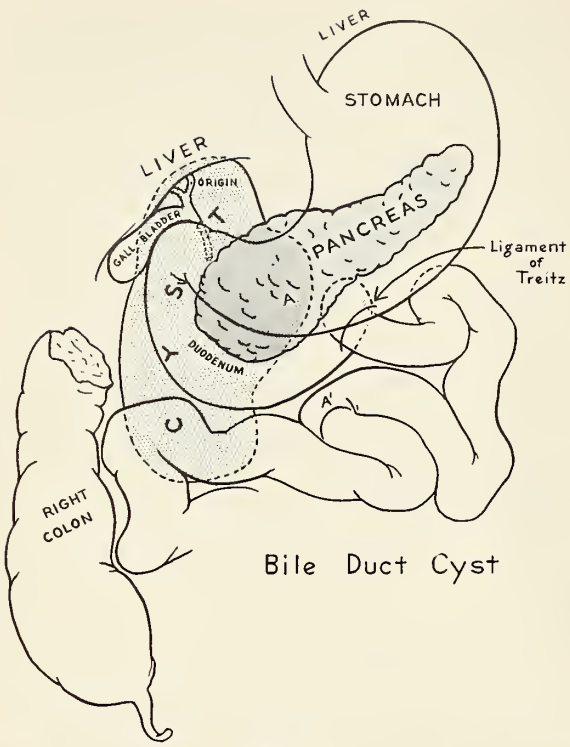


Figure 1

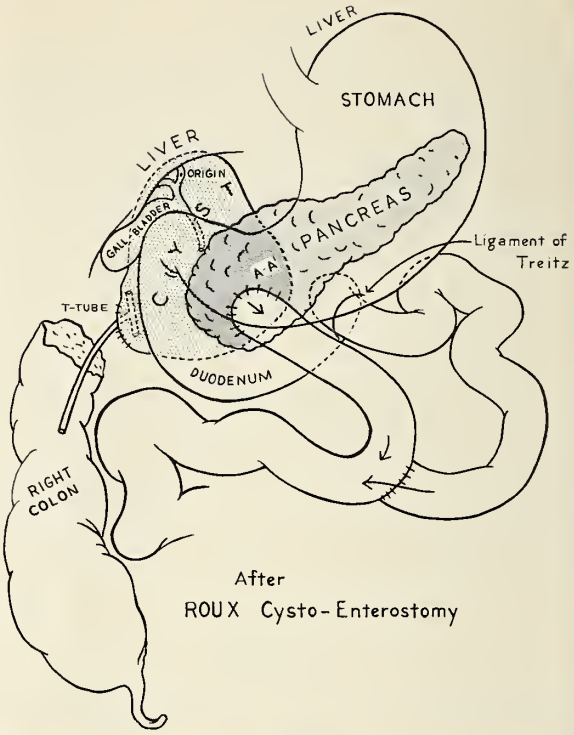


Figure 2

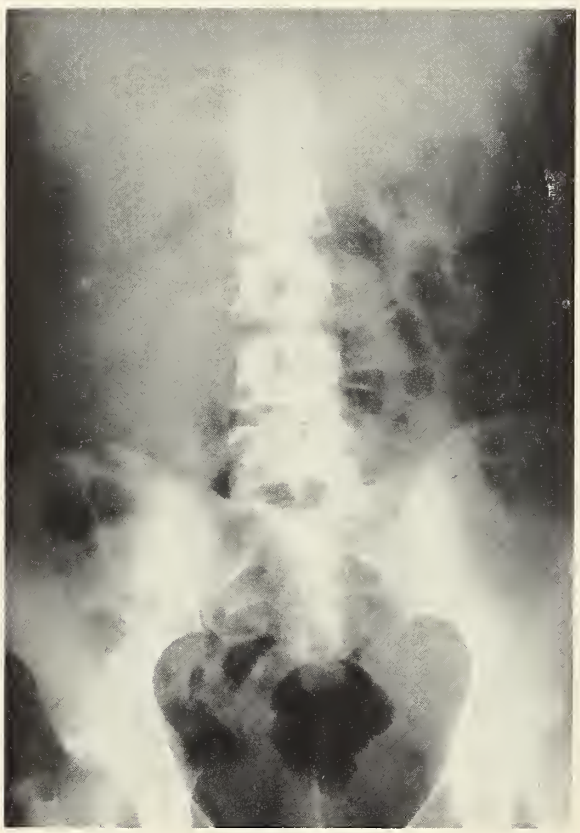


Figure 3

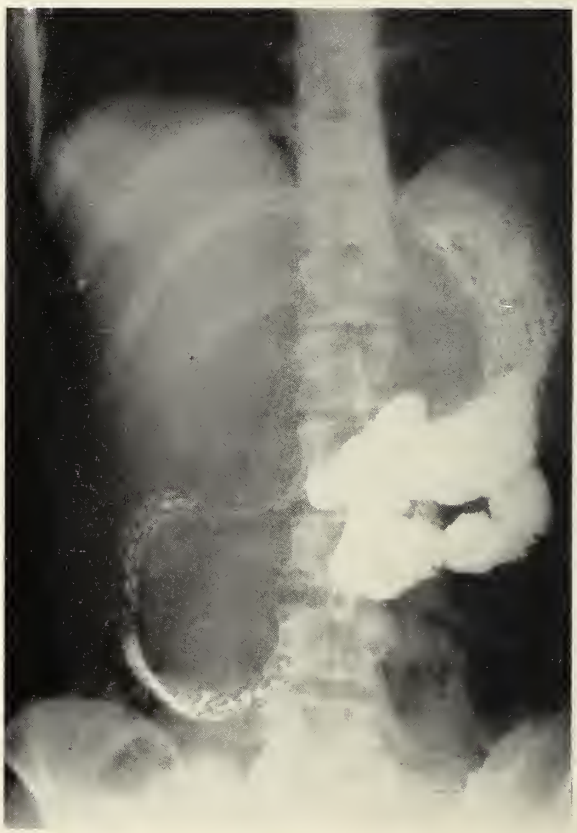


Figure 4

involved resection of the head of the pancreas, seemed too formidable for the patient's condition.

A plan was selected for dependent internal drainage of the cyst by means of a Roux Y enterostomy. As much as possible of the redundant cyst wall was excised, and the edges were sutured about the T-tube. A Penrose drain was placed in Morrison's pouch, and each was exteriorized separately.

The jejunum was divided at a point 16 inches below the ligament of Treitz. The distal section was then attached to the incision of the sac in the curve of the duodenum. An end-to-side anastomosis attached the proximal jeunum to the alimentary canal at a point 16 inches below the junction with the cyst. Continuous 000 Chrome was used for the mucosal and seromuscular layers, and 000 interrupted silk sutures were used elsewhere. The defect in the transverse mesocolon was closed, and the abdominal wall was closed in layers.

The patient's general condition remained fair, with the systolic blood pressure varying from 106 to 110 mm. Hg. over a diastolic 68 mm. Hg. She received two units (1,000 cc.) of blood and 1,000 cc. of electrolyte during the procedure.

According to the tissue report, portions of the cyst wall showed dense hyalin fibrous stroma, with chronic inflammatory cells. There was no epithelial lining.

RADIOLOGY

The initial roentgenologic study was a survey film of the abdomen (Figure 3), on which, when one knows what to look for, he can see that in the right upper quadrant there is a large soft-tissue mass that appears to be depressing the proximal portion of the transverse colon. But if one has not been forewarned, he cannot distinguish it from the liver shadow. The film also shows a loop of gut overlying the soft-tissue mass, but we had no way of telling that it was a widened duodenal loop before we performed the surgery.

The upper G-I series (Figures 4 and 5) showed a duodenal loop markedly dilated as the result of an extrinsic pressure deformity. The pressure deformity appeared to widen the loop and to displace it somewhat posteriorly. On the basis of the radiographic evidence and before surgery was undertaken, our diagnosis was either (1) mass lesion of the head of the pancreas or (2) distended gall bladder.

Figure 6 shows the cyst after 50 per cent Diodrast had been injected into it through the T-tube.

Figure 7 is an erect study made after Iodochloral had been injected through the T-tube. It shows satisfactory drainage of the biliary cyst through the enterostomy.

POSTOPERATIVE COURSE

The patient's postoperative course was mild. There was a superficial wound infection that cleared readily, and she was discharged on February 28, 1952, her twenty-fifth postoperative day. She was advised to clamp off the T-tube intermittently and to measure the amount of bile drainage. Three days later, there was a drainage of no more than 300 cc. At that time, she weighted 128 lbs. and was feeling comfortable. On April 21, 1952, nine ounces of bile drained. After a cholangiogram on May 12, the T-tube was removed. Her weight was then 129 lbs. Two weeks later, there was no drainage, the stab wound was clean and her weight was 132 lbs.

On October 17, 1952, the patient had a headache all day, but it was relieved after a sudden gush of



Figure 5

greenish diarrhea. This same headache, biliary discharge and subsequent relief recurred on November 6. A month later, her weight was 147 lbs., she was feeling well and she was working. She was discharged on February 23, 1953, comfortable, healthy and happy, with her weight at 147 lbs. Her abdomen was negative for mass or tenderness, and her hemoglobin was 14 Gm. When she was seen on May 1, 1953, she was continuing to look and feel well.

Just two months later, on June 29, 1953, the patient was admitted to the hospital because of pain and suspicion of intestinal obstruction. There had been no weight loss, and though there had

been one or two bile stools and a mucous stool, there had been no bowel movement for the past two days. Enemata gave no relief. Back pains, low in the lumbar area, were continuous and unrelenting.

The patient was transfused and explored on July 7, 1953. The intestinal hook-up to the cyst was functioning well, but widespread cancer was seen to involve the portal area, the mesentery and both lobes of the liver. No primary lesion was found in the stomach, and we were unable to examine the pancreas. A biopsy showed only metastatic adenocarcinoma of the liver.

RADIATION THERAPY

From July 14 until July 27, 1953, the patient received 1,400 (air) roentgens through a single anterior portal directed into the subhepatic area. Because the radiographic studies had also revealed evidence of mediastinal adenopathy, 800 (air) roentgens were directed through an anterior portal into the mediastinum during the same period. In the administration of the therapy, 200 kilovolts and 15 milliamperes were used at a distance of 50 cm. The added filtration consisted of 0.5 mm. of copper and 1.0 mm. of aluminum. The half-value of the beam was that of a 1.0 mm. layer of copper.

Carcinomas of the pancreas and biliary system are noted for their radio-resistance. The irradiation therapy that this patient received was of no benefit to her at all, and it may quite possibly have increased her nausea and the amount of her vomiting during the terminal stage of her illness.

There was a downhill, febrile course, and the patient died on August 15, 1953. Permission for a postmortem was not obtainable.

DISCUSSION

The correct diagnosis has been made in no more than 15 per cent of recorded bile duct cyst cases. It should be considered when the triad of pain (59 per cent), right upper quadrant tumor (77 per cent) and jaundice (70 per cent) is present and when the features of cholecystitis are unusual. A cyst of the pancreas and a hydatid cyst of the liver are difficult differential problems even at operation. Valuable clues for hydatid cyst include eosinophilia, positive skin test and/or the rare hydatid thrill on auscultation.

Achalasia of the sphincter of Oddi, abortive diverticulum of the duct system, accessory gallbladders and congenital malformation are some of the accepted theories regarding the etiology of bile duct cyst. Accessory factors that have been accepted are trauma, tuberculous lymph nodes and



Figure 6



Figure 7

the pressure of pregnancy. Chesterman[8] (1944) listed cases complicating pregnancy. Shallow[35] has said, "It seems most certain that a congenital maldevelopment forms the basis of the abnormality." Yotuyanagi[44] has theorized that bile duct cyst and congenital atresia have a common etiologic basis. In the primitive stage, he believes, the solid mass evaginates from the mid-gut and may have an unequal subsequent rate of growth. Indeed the malignant potential to which he has referred is substantiated by the case report that we have given in this paper.

The incidence of this lesion is quite low. Judd and Green found one in 17,381 liver and bile duct cases (Rogers[34]). Smith[38] found two cysts in 757,000 admissions to Presbyterian Hospital, New York City.

Seventy-seven per cent occur in females, and 76 per cent occur in patients less than 25 years old.[1] Since the lesion occurs predominantly in young people and usually to the complete surprise of the operating surgeon, we believe it essential that all physicians should be forewarned about it and should be told of the surgical maneuver by which it can best be dealt with. The current mortality rate of 58 per cent can be substantially reduced through the employment of a technical procedure that is within the reach of every doctor of average ability.

Careful drainage by one of two methods is obviously most satisfactory. Only Dennison[11] has reported success in the simple excision of the cyst. Our case emphasizes the possibility of malignant disease if the defect cannot be corrected. Irwin[23] was moved to give serious consideration to the carcinogenic effect of bile flow over defective epithelial surface in the duct system. And there appeared to be a primary carcinoma in relation to the bile duct cyst in Armanino's case.[2]

The procedure involves simply dividing the jejunum 20 cm. from the ligament of Treitz and rejoining the proximal end to the side of the bowel at a point 20 cm. below the cyst. The T-tube simplifies the postoperative study and management.

SUMMARY

This case presented a triad of pain, jaundice and upper abdominal tumor, yet lacked other signs of cholecystitis. A bile duct cyst was found, was partially excised and treated by external drainage with a Roux Y enterostomy.

Initial success (14 months) was terminated by unexpected and devastating carcinomatosis. Among the cases of bile duct cyst so far recorded, ours is No. 224. It is the eleventh case treated by means of a Roux Y enterostomy, and it is the third case of bile duct cyst associated with adenocarcinoma.

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State University of Iowa College of Medicine

Clinical Pathologic Conference

November 16, 1955

SUMMARY OF CLINICAL FINDINGS

A 72-YEAR-OLD MAN had fallen asleep in his chair one evening while drinking beer and smoking. His neighbors and members of the fire department found him in his burning chair and took him to the local hospital at 5:30 a.m. Burns about his left arm, shoulder and head were dressed. Morphine, 1/6 Gm., and tetanus antitoxin, 1,500 units, penicillin and streptomycin were given him. He was then transferred to University Hospitals, arriving here at 11:00 a.m.

The patient could not give a good history because he was somewhat disoriented, but he claimed to have been in good health. He had noticed exertional dyspnea, and said that he had been treated for stomach ulcers. The examiner noted that he appeared to be in acute distress, and also that he kept trying to throw away a cigarette that he did not have. His mouth was dry and his throat red. His left eye was swollen shut, and his right eye was swollen half closed. A few fine, crackling rales were heard over the right lung base. His heart was not enlarged to percussion, and the tones were inaudible. The pulse was 88 per minute; no abdominal tenderness was present; and the reflexes were equal bilaterally; but the Babinski test was positive bilaterally. Both his arms and his upper chest were covered with dressings. Burned areas were noted on his hands, face and scalp. At 1:45 p.m., the dressings were changed in the operating room, following the intravenous administration of 50 mg. of Demerol analgesia. The burned area was estimated to have involved about 20 per cent of the body surface.

By 3:00 p.m. the patient was excited and restless. During the next two hours he became uncooperative and irrational, and began chewing the dressings off his left hand. At 7:00 p.m. his respirations were "hoarse rasps," but he was not cyanotic. His blood pressure was 140/90 mm. Hg., and his pulse was 80 per minute and full.

At 4:00 a.m. of the second day, his breathing was easier, and he was more rational. He was coughing and raising secretions well. He complained of abdominal pain, and the question of Curling's ulcer was raised. There was no abdominal tenderness or spasm. Bowel sounds were absent. At 10:30 a.m. on the second day a tracheotomy was done because of increasing respiratory difficulty. At 1:30 p.m. it was observed that he was breathing much better and was rational and cooperative. His blood pressure was 140/90 mm. Hg., and his pulse was 96 per minute. By 10:00 p.m. he was again excited, and at 5:30 a.m. on the third day he was said to be having episodes of hyperexcitability alternating with periods of docility. His blood pressure was 130/70 mm. Hg., and his pulse was 108 per minute. His abdomen was soft, and occasional bowel sounds were heard.

During the first day, 7,450 ml. of fluid were given, including 4,000 ml. of 5 per cent glucose, 500 ml. of plasma, 1,350 ml. of blood, and 1,600 ml. of saline. On the second day, 7,460 ml. of fluid were given, including 460 ml. oral, 3,700 ml. 5 per cent glucose, 500 ml. blood, 2,400 ml. saline, and 400 ml. 1/6 M sodium lactate. At the time of his admission, the patient's urinary output was 70 ml. per hour. It then fell to 30 ml. per hour and remained between 25 and 30. This urinary output was considered too low, and it was for that reason that 7,700 ml. of 5 per cent glucose were given during the first two days. Toward the end of the second 24 hours of treatment, 800 ml. of 5 per cent glucose were ordered "to run very swiftly—approximately 500 ml. in one hour and 800 ml. of 5 per cent glucose to follow at 200 ml. per hour." In response, after a brief slight increase, the urinary output actually

Day (a.m.)	Hbg. Gm. %	Hct. % RBC	Na. mEq./l	K mEq./l	CO_2 mEq./l	Cl. mEq./l	BUN mg. %	Cr. mg. %
2nd	20	64	137	5	11	105	16	1.4
3rd	15.6	52	130	5	14	101	18	1.4
4th	15.5	55	133	4.6	17	93	23	

fell to 25 ml. per hour. Later in the day the patient was observed to be breathing hard and to be disoriented.

Late in the third day, because of failure of diuresis in spite of the large amounts of 5 per cent glucose, and because of concern over the low sodium and carbon dioxide, a complete review of the intake, output, chemical values, etc. was made, and the following diagnosis was recorded on the chart: "[The patient] is overhydrated with water and without the right proportions of electrolyte solutions. . . . The patient is acidotic, hypotonic, as well as hypervolemic. [He is] breathing hard, with expiratory wheezes and frothy mucus from the tracheotomy tube. The blood pressure is 130/80 mm. Hg., and the pulse is 108. He continues to be disoriented, which may be a manifestation of water intoxication." The patient's acidosis was then treated by means of 100 ml. of 1/6 M sodium lactate. Nothing was done about the hypotonicity and overhydration other than the very slow administration of 800 ml. of 5 per cent glucose. Progressively more fluid was aspirated from the tracheotomy, and on the morning of the fourth day the intravenous infusion was discontinued. On the morning of the fifth day, 1,000 ml. of skim milk were ordered administered "by Murphy drip."

From the bedside notes it appears that facial edema resulting from the burn reached a maximum about 24 hours following the injury, and then decreased so that it was 50 per cent less than maximum by the end of the second day. The areas of third degree burn began to be definable in the exposed areas during the latter half of the second day. Death occurred at 3:18 p.m. on the fifth day because of increasing difficulty in breathing, and in spite of the fact that earlier in the day the patient had reported feeling better than at any time since his admission.

CLINICAL DISCUSSION

Dr. Edward E. Mason, Surgery: Some clinical pathologic conferences are concerned with diagnostic problems, it being left for us to guess what the diagnosis is. This patient whom we are to discuss today was not a diagnostic problem, and yet, as you will see, even after we have all of the information there is still some question as to the exact cause of his death and as to whether or not he might have been saved if we had handled him in a different manner. Therefore, I shall present this case in a slightly unorthodox manner.

Dr. Ziffren, suppose that you had a patient 75 years of age who had a burn covering 20 per cent of the surface of his body, including his face and shoulders. From what would you think him in greatest danger of dying, and how should you suggest that he be treated?

Dr. Sidney E. Ziffren, Surgery: Whenever we have a burned patient in the seventh decade of life, as this patient was, the chances of his dying are very great. If death occurs within the first two days, it ordinarily is the result, not of under treatment, but because of zealous over treatment.

We have a tremendous desire to treat by the so-called "book," not realizing that when we are dealing with infants or with elderly people who have been burned, we run a tremendous danger of overloading the circulation. The case under consideration is not the first, and it will not be the last, in which we have made that mistake, for we have to follow a very narrow course in keeping these patients alive. Many of them seem likely to survive, but die a month or even two months later from complications of the burn.

When we are confronted by a patient who has burns on his face and neck, the first question that should occur to us is whether or not there is damage intratracheally as well as on the surface of his body. How can he have been burned in that fashion? If he has inhaled fumes for any length of time, the same sort of process will be present in his tracheobronchial tree as on the surface of his body. In addition, if the flames have been hot enough, he may have inhaled them, with an identical result. Under such circumstances, pulmonary edema from intratracheal burn is to be expected, and the perils of fluid administration are enhanced.

The other problem in the aged, no matter what the disease, is hypovolemia. It is to be expected in most instances. In an elderly person it is natural for the blood volume to be low, unless he has been taking exceptional care of himself. When such an average oldster has been burned, one must contend with an extraordinary type of shock—a shock that is hastened, deepened and made virtually irreversible by hypovolemia. The elderly patient does not have the physiologic flexibility possessed by younger individuals.

With these two perils in mind, let us see what the results have been in people who have been treated for burns. The first of my tables represents the findings of two English physicians, Drs. Bull and Fisher. By showing the mortality in two age groups, it points up the great difference that exists between the young and the old. According to Bull and Fisher, mortality is practically nil among normal, healthy individuals who have suffered burns

of no more than 4 per cent of the body surface. Among patients 65 years of age and older, however, 18.0 per cent die from that sort of injury. When the percentage of body surface burned is between 15 and 24 per cent, the mortality is only

MORTALITY BY AGE GROUPS
After Bull*

Per Cent of Body Surface Burned	*Per Cent Mortality Among Patients 15-45 Years Old*	*Per Cent Mortality Among Patients Over 64 Years*
0-4	0.3	18.0
5-14	1.0	41.0
15-24	6.0	80.0
25-34	0	100.0
35-44	11.0	100.0
45 and over	62-100	100.0

* Bull, J. P., and Fisher, A. J.: Study of mortality in a burns unit; a revised estimate. Ann. Surg., 139:269, (Mar.) 1954.

6 per cent among the younger patients, but is 80 per cent in the older ones. And when the burn has been more extensive than 24 per cent, there is no chance at all that a patient over the age of 65 will survive.

The second table represents our own experience, and you can see that the figures there are not much better. The average patient in our group had burns covering 23 per cent of his body surface, and there were some who died even though no more than 5 per cent of their body surfaces had been burned.

I believe that the only facts on which one can depend in treating elderly burn patients are the urinary output and one's own clinical impression. Above all, I don't have any faith in the use of

MORTALITY AMONG BURN PATIENTS
University Hospitals, Iowa City

Year	*Number of Patients*	*Per Cent Mortality*
1949	4	50.0
1950	5	40.0
1951	10	40.0
1952	4	50.0
1953	11	45.4

plasma in the treatment of a burn, especially in an old person. We fail to remember that the red cell, if we want to think of it as a molecule, is about a billion times as heavy as the albumin molecule, and its osmotic effect in blood is great in contrast with plasma's. It has been repeatedly shown that whole blood is much more valuable than plasma in other respects, and in the aged it has the additional virtue of overcoming hypovolemia instead of increasing it.

The next problem is that of gauging how much fluid should be given. Ordinarily we say 25 to 50 cc. per hour. Now if a patient is putting out 20 cc. per hour, I see no reason to start flooding him with fluid to push his excretory rate up to 50 cc. The important fact is that he is putting out *some* urine. In addition, if his pulmonary tree has been burned, we should at all costs avoid pushing more fluid into him. The specific gravity to which we pay such strict attention is less important in the elderly patient, for he cannot concentrate so well anyway, even when he is relatively healthy. In a young person, more fluid is needed if a high specific gravity is present and if the urinary output is low. In him, one is justified in speeding up the rate of fluid administration. But in an old individual, there is no reason for our becoming excited when the specific gravity is low and the output small, for we know that he cannot concentrate as well. If the fluid is running at 120 drops per minute—and that is a pretty fast rate—and his urinary output keeps falling, one should become concerned when it falls to 5 or 10 cc. per hour. Then, I think one should attach a bottle of blood and start it running. We must not try to treat a calculated number. Hematocrit readings or hemoglobin levels are quite unreliable even in the young, and certainly in an aged patient we find that they have no value whatever. If we can maintain a urinary output, we shall have a live patient. And above all, we must stop giving intravenous fluids at the end of 48 hours, for invariably at the end of 36 hours, these patients have stopped the fluid shift, and if they continue with sodium retention and oliguria, they will continue to accumulate fluid. If the fluids are continued intravenously, they will produce a dangerous state of edema.

There is one additional point that I should like to make concerning elderly burn patients. We have found that 66 per cent of the fatalities among these elderly burned people had infarcts of one or several organs, and that figure may fall short of representing the actual incidence, for there were some cases that we failed to autopsy. For instance, in two cases from the group on whom autopsies were not performed the clinical observations made at the time of death led to a presumptive diagnosis of pulmonary embolism. If we included them, 93 per cent of the patients could be said to have had infarction. What relationship may exist between this observation and the entire problem, I am sure I don't know. No one, to my knowledge, has shown a connection between burns, stress and infarcts, but it is true that they occur together in a very high percentage of these patients. I don't know whether this patient had infarcts or not.

Dr. Mason: The patient's age, the extent of the burn on the surface of his body, the fact that it was located about his face, and the possibilities of his having suffered an injury to his tracheobronchial tree and of his having had thromboses or emboli—all of these give us ideas about what may have been found at postmortem.

Now what other possibilities are there? You will notice that according to the protocol this patient had a history of exertional dyspnea and that a few fine rales were heard in the lung fields at the time

of his admission. That evidence, together with his age, might suggest some cardiac insufficiency that could have contributed to his death. We have noted from the protocol and from notes on the chart that the patient's facial swelling was present at the time of admission, that it increased progressively until early in the second day and that it then regressed, rapidly at first and then more slowly. At about the time when the facial swelling was greatest, the patient had difficulty in breathing, and a tracheotomy was necessary. Thus, I think we can conclude that he may have had some heat damage to his mucous membranes and some resultant obstruction to his airway. As to whether he inhaled enough smoke to cause pulmonary edema, it is difficult to say. That edema could have contributed to the obstruction of his breathing, or if it had occurred later, it could have correlated with the difficulty in respiration that he experienced during the third and fourth days of his illness. His apparent difficulty in respiration increased until he died, and incidentally, he died from inability to breathe adequately.

According to the chart, there was much suctioning of fluids from his tracheobronchial tree, and whether or not this fluid initially was due to burn, heart failure or overloading of fluids, I think it is reasonable to suppose that bacteria may have begun to grow in that fluid, so that by the time he died he may have had some tracheobronchitis or pneumonia, or both, and that this may later have contributed towards the production of additional fluid. It may have added to the difficulty in gas exchange in his lungs.

Dr. Ziffren has briefly outlined the treatment that we give to burn patients and has brought out the fact that overtreatment is very common in the cases of people who have burns covering between 8 and 25 per cent of the body surface. That is one of the things to which Moyer[1] recently called attention in discussing the progress that has been made in the treatment of burns—the fact that we are still overtreating people with minimal or less than moderate burns.

I think that we can legitimately ask ourselves whether this patient needed any intravenous therapy at all. At no time during his hospital course did he have an acceleration of pulse, a falling blood pressure, a cessation of urinary output or anything else that would indicate his having an inadequate blood volume. His being treated rather vigorously may have been the reason why we never observed that inadequacy, of course, but the fact remains that throughout the patient's stay in the hospital, objective evidence of hypovolemia was entirely lacking.

Fluid therapy requires that we supply fluid for the day's metabolic needs—fluid for urinary output and fluid to replace insensible loss. Now if this man was unable to drink and did need intravenous fluids for replacement of insensible loss and for urinary output, he should have been given a minimum amount. Since he wouldn't become uremic during the first few days after his burn, we could have afforded to use a minimum amount of fluid. Let us suppose that we supplied 800 cc. for replacement of insensible loss on each of the two days, and 800 cc. for urine. Actually, his urinary output amounted to about 800 cc., even though he was given fluid considerably in excess of that amount. He actually was given 7,700 cc. of 5 per cent glucose, or 4,500 cc. more than he excreted in his urine. And since water is distributed throughout the lean body mass (the non-fat portion of the body is the water-containing part), we can calculate roughly that he had about a 12 per cent excess of water in the water-containing portion of his body.

The second thing which we need to do in fluid therapy is to replace current losses, and the third thing is to correct any abnormalities or deficiencies that exist in the patient. We can suppose that if there was any abnormality at the time of this patient's admission, he was over-hydrated, for he had been drinking beer. Because he was probably normal, there was no need for restoring him to that state. The only problem was replacing current losses. What is the current loss in a burn patient? Fluid analyzed from blisters contains electrolytes found in extracellular fluids and about half of the concentration of protein that is present in a person's serum. There are no red cells in that fluid, but we know from experience that the more severely burned patients need a supply of red cells.

As I said before, this patient might well have survived without any treatment at all. He may not have needed any blood, and he may not have needed any electrolyte solution. We should not anticipate that a person is going to go into shock from a burn of this size. If the patient has a 40 or 50 per cent burn, we know that he will need blood and electrolyte solutions, and we can start administering them before shock occurs, but if he has a 20 per cent burn, we should just watch him closely to see whether his pulse goes up, whether his pressure falls, and whether his urinary output ceases. If any of the signs of hypovolemia appear, we can be sure that he needs treatment. This patient may not have needed it, and if he didn't, then we can suppose that he received 2,300 cc. of blood in excess of his requirements. What is this in terms of magnitude? Since this man weighed 55 Kg. and since about 8 per cent of body weight is blood, we can estimate that he had a blood volume around 4,500 cc. Thus he may have received an increase in blood volume of approximately 50 per cent. For a 75-year-old man who possibly had inadequate cardiac function, this is considerable. For a man who possibly has had damage to his respiratory tree, this is a significant factor.

If he didn't need any blood, he didn't need saline either. And since 4,000 cc. of saline amounts to about a third of the volume of his extracellular

fluid, he may have had about a 36 per cent increase in extracellular fluids due to this electrolyte solution. That is maximum. Let us suppose, now, that he needed the blood and that he needed the electrolyte solution, and let's use a formula, even though our doing so isn't generally advisable. Then, let's suppose that the resident gave him 2,300 cc. of blood because he needed that. He certainly should not have given him more than an equal amount of electrolyte solution, but in actuality he administered two liters more of saline than of blood, and when two liters of saline are distributed, the extracellular fluid space is expanded by about 18 per cent.

Even if the patient did not need blood and saline, but needed fluid for urine and for the replacement of insensible loss, he did not need this 4,500 cc. of 5 per cent glucose. Thus the minimum of his overloading was 4,500 cc. of glucose, which amounts to about a 12 per cent increase in the total body water, and 2,000 cc. of saline, which amounts to about an 18 per cent increase in his calculated extracellular fluid.

In conclusion, then, we can make a diagnosis at the end of these first two days just on the basis of intake and output. We can say that as regards volume, the patient had an excess of 18 per cent in extracellular fluid and, in addition, a 12 per cent excess of both extracellular fluid and intracellular fluid.

The second part of a complete fluid and electrolyte diagnosis involves an assessment of tonicity and chemical composition. We can say that since the patient received an excess of water without electrolytes, he would be hypotonic. In fact, since the excess of water was about 12 per cent, he should be about 12 per cent hypotonic. You will notice from the protocol that his sodium actually dropped about 10 per cent below normal. It went down to 130 mEq./1.

Third, we could predict that he would have a hyperchloremic metabolic acidosis, for he had been given 2,000 cc. of saline that he did not need, and saline has considerably more chloride in it than extracellular fluid has. At the end of two days of treatment, this patient was breathing rapidly, but we do not know whether he was doing so because of a difficulty in exchange caused by edema in his lungs, or because of acidosis.

Dr. Emory D. Warner, Pathology: The summary of the course and of the therapy that Dr. Mason has given you covered the first two days of the patient's hospitalization. The patient died on the morning of the fifth day, a considerable time thus having intervened between the energetic fluid therapy and his death.

At the time of death, the patient did have severe edema and congestion, along with considerable pneumonia, in his lungs. The lungs were quite heavy. Their combined weight was over 1,300 Gm., as against a normal weight of around 800 Gm. Furthermore, it is to be remembered that this patient was a rather small individual—55 Kg. Most of the excessive lung weight was edema fluid. He also had hydrothorax of approximately three liters —1,500 cc. on each side. As a result he had extensive disease of the respiratory system, and of course there was collapse of the dependent portions of both lungs. He did not have any appreciable excess of interstitial water. The subcutaneous fascial tissues, etc., were not wet as they are in some cases. There was no pretibial edema, for example, and no dependent pitting edema. Aside from the pleural ones, the serous cavities contained no accumulations of fluid. There were only a few cubic centimeters, three or four, in the peritoneal cavity. The same was true of the pericardial sac.

As to other findings, some of the burns which were described did not appear to be grossly infected. They were not greatly edematous at the time of death, the swelling having receded considerably, as Dr. Mason mentioned.

As to whether or not heat had penetrated the respiratory tract, I don't think we are in position to say. The burn did extend to the alae of the nose and the circumoral region of the mouth, and thus it is possible that he may have inhaled smoke and heat, if not actual fire. But there is nothing in the record of the physical examination about a burn in the throat that could be seen from above. Unfortunately, the larynx was not removed in this case. The trachea did not show a burn eschar. The tracheal epithelium was rather well preserved. Some cellulitis around the tracheotomy wound involved the trachea and the soft tissues, the thyroid, for instance. There was some low-grade cellulitis spreading out from the tracheotomy wound, but the epithelium of the trachea and main bronchi was intact. Considerable sloughing of epithelium associated with the bronchopneumonia was evident in the small bronchi well out in the periphery of the lung. How much of that could have been gas injury, I don't know, but I think that we are justified in supposing the patient probably didn't have much heat injury out in the lungs, for the trachea and main bronchi didn't show it.

Other findings included several acute ulcerations in the pyloric half of the stomach. These would fit with the so-called Curling type of ulcer, which is more common to the duodenum. They had destroyed the mucosa and superficial submucosa, but did not go deeper and had produced no scarring. They were acute, penetrating ulcers that had not penetrated very far, and I think one might reasonably suppose they had their inception at the time the patient was burned.

The heart was hypertrophied. It weighed 450 Gm., against an average of a little less than 350 Gm., and again one should remember that this man was a little on the small side as regards body weight. His heart hypertrophy was mostly in the left ventricle. His coronaries were patent. They

were somewhat sclerotic, with some points of narrowing, and in the myocardium there was patchy fibrosis in many areas. In addition to the patchy fibrosis, there were areas of muscle degeneration—a patchy, piecemeal type of degeneration, a fiber here and there, with phagocytic cell reaction to degenerating muscle fibers. These probably were ischemic. There were no necrotic fibers at the time of autopsy. The dead fibers were gone, a fact which showed that this ischemic degeneration of his myocardium without any gross infarct had preceded his burn.

For a man of his age, he had remarkably little atherosclerosis of the aorta and main vessels, a circumstance which perhaps was associated with his under-nutrition. For his age, at least, it was a rather astonishingly well preserved aorta.

There was some hyperplasia of the prostate. His left kidney weighed only 60 Gm., as opposed to 170 Gm. for the right one. Probably the left kidney was congenitally small, for it was not a shrunken, scarred old pyelonephritic kidney.

There were two thrombi in the medium-sized arteries of the lung, but there were no infarcts elsewhere in the body.

How well does this accumulation of fluid in the chest support the clinical diagnosis of overloading of the circulation or overloading of the body, especially the extracellular fluid, with water? In the first place, I should like to remind you that two and a half days had elapsed since the discontinuance of that excessive fluid administration. The edema that he had in his lungs, along with the congestion, could have been incident to the pneumonia. The organisms cultured from bronchial exudate and from lung tissue out at the periphery were Pseudomonas aeruginosa and hemolytic Staphylococcus aureus. The latter organism, of course, is quite capable of producing an extremely hemorrhagic and edematous pneumonia, so that the edema and congestion could have resulted from the pneumonia. It is also conceivable that he did inhale irritant gases, if not actually fire, thus injuring his lung tissue. A great many of the cases in the Coconut Grove catastrophe, for example, had tremendous pulmonary edema, which was attributed to injury of the lung tissue consequent to the inhalation of irritant gases. That, then, is another possible cause for edema.

The patient had no evidence of passive congestion, and he did have a hypertrophied heart that was somewhat dilated at the time of his death. Thus I think we can presume that he had cardiac failure at the time of death, and that also could have contributed to the edema in his lungs. I don't think we can rule out overloading with fluid on the basis that the accumulation of water was for the most part confined to the chest and was not evident in other serous cavities or in the interstitial tissues. At first glance it would seem that overloading should result in general distribution of fluid to the serous cavities. But it doesn't seem always to work that way. We don't know why fluid sometimes accumulates more in some places than in others—in one pleural cavity but not in another, for example. The fluid in the chest could have resulted from cardiac failure, from either bacterial or chemical pneumonia, or from overloading with fluid. I don't know how we can decide the possible role of each on the basis of the autopsy findings.

I should like to mention some mortality figures I looked up, so that you can consider them along with those that Dr. Ziffren has given you. Mine are from an article in the October, 1955, ANNALS OF SURGERY.[2] In 158 cases of burns including persons of all ages and burns of varying extent there were 72 deaths. Twenty-one out of 23 patients over 60 years of age died, and of those 21, 13 had burns that covered less than 33 per cent of the body area. In several of them the damaged area was no more than 10 or 15 per cent. These figures show a really terrible mortality in the older age group. There were 38 patients who had burns covering more than 50 per cent. Of them, only seven lived—all seven being in the 50-60 per cent sub-group. In other words, there were no elderly survivors of burns that affected more than 60 per cent of the body area. Among the 72 deaths, there were just two cases of pulmonary embolism. There were 23 cases in which mistreatment from the standpoint of fluid and electrolytes was suspected as a significant factor in the death. It was felt that mismanagement in nine cases could be proved on the basis of course and postmortem findings.

Dr. Elmer L. DeGowin, Internal Medicine: I should like to ask the clinicians whether the urine was examined for chloride output.

Dr. Mason: I went through this chart very carefully, and I couldn't find that any chloride determinations were done.

Dr. DeGowin: I'm rather surprised at the small amounts of fluids that were found in the body. I wonder whether perhaps the amounts of water and sodium lost from the burned tissue weren't underestimated.

Dr. Warner: The postmortem urea nitrogen and creatinine were normal.

Dr. Mason: Dr. DeGowin is postulating that the 2,300 cc. of blood and an equal amount of electrolyte solution were indicated in this patient. I think that's very possible. I think it is also evident that he did not need the two liters of saline which were given in addition to that, or the 4,000 cc. of water that were given in addition to his calculated metabolic needs.

Dr. DeGowin: By analogy, in animals where muscle has been traumatized in order to produce shock, the amounts of both fluids—blood and plasma—that are lost are quite consistently underestimated unless they are actually measured. I am sure that Dr. Tidrick remembers the argument about the treatment for hemorrhagic shock, when

it was quite some time before surgeons were convinced that they should give as much blood as was in fact necessary. I wonder whether the same thing may hold true for burns.

Dr. Henry E. Hamilton, Internal Medicine: What clinical or laboratory evidence supports your statement that the patient was hypervolemic?

Dr. Mason: It was felt that the patient had been given a possibly excessive amount of blood, certainly an excess of saline and certainly an excess of 5 per cent glucose. Now the 5 per cent glucose would have the least enlarging effect on the blood volume. The saline would have the next greater enlarging effect on the blood volume since it is distributed in extracellular fluid, and the blood (to the extent that here was an excess of blood given, and about that we don't know for sure) would have the greatest effect in causing hypervolemia.

Dr. Ziffren: I noticed in the protocol that it was six hours before the patient had any treatment at all, and then, apparently, the first thing that anyone could think of was to rush him to the operating room and give him some intravenous Demerol and "change his dressing." I don't know what the authors of the protocol meant by that last-named procedure. I am very suspicious when I am told of anyone's proposing to do something of that sort, for it seems likely that he intends undertaking what is popularly spoken of as debridement. I should like to clear up one point. If an individual has a third-degree burn, the only way in which one can debride it is, of course, to cut it out completely. What far too many people do, under the impression that they are debriding a burn, is to wash it with soap and water, scrub it and break blisters. They have some idea that they are doing the patient a great deal of good, but their performance is as futile as can be, for as I said before, one cannot convert a third-degree burn into an aseptic wound except by completely excising the burned skin. If the patient has incurred a burn by being dragged along the pavement and has had some dirt imbedded in the wound, then it can be treated in that fashion. But an injury that has resulted from a thermal burn should never be so treated. When a patient has been severely burned, there is no point in inflicting additional trauma. He has had enough!

In this protocol, nothing is said about what fluid was given on the third, fourth and fifth days. I suspect he was probably given intravenous fluid then.

Dr. Mason: This patient was not debrided in the operating room nine hours after having been burned, but I think the fact that he was taken to the operating room to have his dressings changed is a symptom of the psychology of the people who were taking care of him. They were highly overzealous, and that attitude of theirs is the one of which we must beware in taking care of burns. When a burn patient comes in, everybody rushes around. We have to do something! We have to put some butesin picrate all over it, or smear something else on it, wrap it up and maybe put plaster on it. I've actually heard of extremities being encased in plaster casts, on the theory that swelling could be prevented by that means. The patients lost their arms or legs as a result. One cannot prevent swelling, no matter what sort of dressings he applies. Doing harm is the one thing that one must be sure to avoid! Exposure treatment can be used if the situation is such that the burn will not be contaminated. A moderate amount of fine-mesh gauze can be put next to the burn, or vaseline gauze can be used instead, the objectives being protection and partial immobilization. But edema, it seems, is in the nature of things and cannot be prevented.

Student: On what do you base your statement that the patient had a hyperchloremic acidosis?

Dr. Mason: I came to that conclusion because he had a relatively high chloride and a low CO_2 combining power as a result of his having been given saline, which has 155 mEq./1 of chloride and an equal amount of sodium, in contrast to extracellular fluid, which has usually about 142 mEq./1 of sodium and only 103 mEq./1 of chloride. So there is an excessive amount of chloride in saline by the proportion of about 3:2.

In conclusion, let me quote from Moyer's recent editorial:[1] "Overzealous administration and the non-intelligent use of guide formulas constitute the main hazards of the fluid therapy of burns today. In general, fluid overloading occurs mostly among those persons with burns covering 8 to 25 per cent of the body. The majority of such burns induce circulatory changes that can be handled by the individual without the administration of saline solutions, blood or plasma. The burned person who demonstrates signs of shock must be actively treated, even though the burn may be small, but he who does not develop signs of shock should not be over-treated in anticipation of shock. It is likely that many recover from relatively small burns (less than 25 per cent) not so much *because* of fluid therapy, but *in spite* of it. The same is true for larger burns, but less frequently so."

SUMMARY OF NECROPSY FINDINGS

Dr. Warner: At the time of autopsy there were rather severe edema and congestion of the lungs, with considerable pneumonia. There was bilateral hydrothorax (1,500 cc. on each side) but no generalized anasarca. There were two large, acute ulcers in the pyloric end of the stomach. Thrombi were present in several pulmonary vessels and in small vessels in the base of the gastric ulcers. The left ventricle of the heart was moderately hypertrophied and showed considerable fibrosis, with small areas of recent and probably ischemic degeneration. The viscera showed moderate passive con-

gestion. There was moderate cellulitis about the tracheotomy wound. The burn areas did not appear to be infected.

Other findings included a small hemangioma of the liver, a congenitally small left kidney, hyperplasia of the prostate and remarkably little atherosclerosis for the patient's age.

NECROPSY DIAGNOSES

Burn, thermal, third degree, of upper extremities, shoulders, neck, face and head—four days' duration
Congestion, edema and bronchopneumonia, lungs
Hydrothorax, bilateral
Acute gastric ulcers
Myocardial fibrosis, patchy
Cardiac hypertrophy and dilatation
Congestion of viscera
Tracheotomy, recent
Hyperplasia, prostate
Hemangioma, liver.

REFERENCES

1. Moyer, C. A.: Treatment of burns. Surgery, 38:806-812, 1955.
2. Haynes, B. W., Jr., Martin, M. M., and Purnell, O. J.: Fluid colloid and electrolyte requirements in severe burns. Annals of Surgery, 142:674-679, (Oct.) 1955.

AMA SECTION HONORS DR. HARKNESS

Dr. Gordon Harkness, of Davenport, has been appointed honorary chairman of the AMA Section on Laryngology, Otology and Rhinology for the meeting which that organization is to hold in conjunction with the AMA annual meeting at Chicago, Illinois, June 12-14, 1956. He will give the opening address.



Dr. Harkness, a former president of the Iowa State Medical Society, is the section's member on the AMA House of Delegates, and has long been nationally prominent among the specialists in his field. In choosing him for this honor, the Executive Committee of the section wished to recognize the tremendous organizational work and devoted representation that he has given the group throughout a considerable number of years.

UROLOGY SHORT COURSE

The dates for the SUI College of Medicine Postgraduate Course in Urology have been changed from March 30 and 31 to March 23 and 24, so as to avoid the Easter week-end.

NEVADA SOCIETY INSURES ATTENDANCE

A measure to increase attendance at its meetings was recently adopted by the medical society of Washoe County, Nevada, in the form of a by-law applying to all physicians on its roster, with certain stated exceptions. It reads: "Each doctor shall attend 50 per cent of the meetings of the Washoe County Medical Society, with the exception of doctors who are 50 years of age or older with 10 years' attendance at the meetings, or 55 years of age with five years' attendance." Penalty for nonattendance is $100, with the possibility of suspension or expulsion for consecutive years of poor attendance.

COBALT BOMB TO BE INSTALLED AT SUI

A $43,000 cobalt radiation unit, popularly known as a cobalt "bomb," is to be installed in the medical research building now under construction at the College of Medicine of the State University of Iowa. The unit is being given to the University by the Iowa Division of the American Cancer Society. Half of its cost will be paid now, and the remainder will be paid out of receipts from the current year's cancer campaign.

According to Dr. Higdon B. Elkins, associate professor of radiology at SUI and the man who will direct the operation of the unit, it will (1) enable radiologists to direct more rays to greater depth than has been possible with the most powerful x-ray machines; (2) reduce skin reactions, for the rays emitted by radioactive cobalt are less likely to stop at the skin surface; (3) produce a "tighter" beam that will permit the irradiation of a smaller area of normal tissue around the cancer and produce fewer systemic effects such as radiation sickness; and (4) provide a means for conducting intensive research in the treatment of cancer by irradiation.

The "bomb" will be installed in a specially-constructed room in the basement of the new $1,500,000 Medical Research Center which is being built between the University's General Hospital and the Medical Laboratories Building.

Dr. Elkins said that the new unit will not be used for treatment purposes for perhaps several months after it is installed. First, he said, many tests must be conducted to determine whether the unit is in perfect working order. Then, after those tests have been made, final approval must be secured from the Atomic Energy Commission.

"Gifts such as this," Dr. Norman B. Nelson, Dean of the College of Medicine, pointed out, "and those which come to us frequently from organizations such as the American Heart Association, the Tuberculosis and Health Association, the National Foundation for Infantile Paralysis and others play an invaluable part in our medical research at the University."

Coming Meetings

In State

Feb. 15-18	**Refresher Course for General Physicians.** SUI College of Medicine, Iowa City
Feb. 21-23	**Sioux Valley Medical Association.** Hotel Martin, Sioux City
Mar. 21	**Centennial Meeting, Scott County Medical Society.** Blackhawk Hotel, Davenport
Mar. 29	**Diagnosis of Surgically Remediable Heart Disease.** SUI College of Medicine, Iowa City
Mar. 23-24	**Urology.** SUI College of Medicine, Iowa City
Apr. 11	**Neurology.** SUI College of Medicine, Iowa City
April 22-25	**Annual Meeting, Iowa State Medical Society.** Veterans Auditorium, Des Moines
May 16	**Allergy.** SUI College of Medicine, Iowa City

Out of State

Feb. 1	**Third Symposium on Office Procedures for the General Practitioner.** Sheraton-Cadillac Hotel, Detroit
Feb. 2	**Cardiovascular Teaching Day.** Albany Medical College, Albany.
Feb. 2-4	**Mental Deficiency.** U. of Minnesota Center for Continuation Study, Mpls.
Feb. 3-5	**Recent Advances in Therapy of Cardiovascular Disease.** Albany Medical College, Albany.
Feb. 4-5	**American Academy of Allergy.** Chase Hotel, St. Louis
Feb. 6-10	**Continuation Course in Neurology.** U. of Minnesota Center for Continuation Study, Minneapolis.
Feb. 6-10	**Endoscopy; Bronchoesophagology & Laryngology.** New York University, NYC
Feb. 6-10	**Pediatric Neurology.** Tulane University School of Medicine, New Orleans
Feb. 6-10	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 6-17	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 6-17	**Diagnostic X-ray.** Cook County Graduate School of Medicine, Chicago
Feb. 6-17	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Feb. 9	**Endocrine Disease.** U. of Buffalo School of Medicine, Buffalo
Feb. 11-12	**Los Angeles Obstetrical and Gynecological Forum.** Ambassador Hotel, Los Angeles
Feb. 11-14	**Fifty-second Annual Congress on Medical Education and Licensure.** Palmer House, Chicago
Feb. 13-15	**Electrocardiography.** U. of Nebraska College of Medicine, Omaha
Feb. 13-15	**Internal Medicine for Internists.** U. of Minnesota Center for Continuation Study, Minneapolis
Feb. 13-16	**American College of Surgeons.** Bellevue-Stratford Hotel, Philadelphia
Feb. 13-16	**Radiology & Radioactive Isotopes.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 13-17	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 13-17	**Obstetrical and Gynecological Assembly of Southern California.** Ambassador Hotel, Los Angeles.
Feb. 13-18	**Laryngoscopy, Voice & Speech Pathology, and Audiology.** Mt. Sinai Hospital, NYC
Feb. 13-24	**Office and Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Feb. 14-16	**Midwinter Postgraduate Clinics.** Colorado State Medical Society, Denver
Feb. 15	**Symposium on Heart.** Indiana University School of Medicine, Indianapolis
Feb. 16-18	**Cancer Detection for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis
Feb. 20-21	**Office Proctology.** Mt. Sinai Hospital, NYC
Feb. 20-22	**Atlanta Graduate Medical Assembly.** Atlanta Biltmore Hotel, Atlanta
Feb. 20-22	**Refresher Course for General Practitioners.** Vancouver General Hospital, Vancouver, B.C.
Feb. 20-24	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 20-Mar. 2	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 20-Mar. 2	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Feb. 23	**Psychiatric Problems in General Practice.** U. of Buffalo School of Medicine, Buffalo
Feb. 24-25	**Hearing and Speech Conference.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 27-28	**Tenth Annual Heart Conference.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 27-29	**Auscultation of Heart.** New York University, NYC
Feb. 27-29	**E.E.N.T. Continuation course for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis
Feb. 27-29	**Electrocardiography.** Indiana U. School of Medicine, Indianapolis
Feb. 27-29	**Sectional Meeting, American College of Surgeons,** Milwaukee
Feb. 27-Mar. 1	**Demonstration of Clinical Management of Poliomyelitis.** Texas Medical Center, Houston
Feb. 27-Mar. 1	**New Orleans Graduate Medical Assembly.** Municipal Auditorium, New Orleans
Feb. 27-Mar. 2	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Feb. 27-Mar. 9	**General and Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Feb. 27-Mar. 9	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Feb. 28-Mar. 2	**Annual Clinical Conference of the Chicago Medical Society.** Palmer House, Chicago
Mar. 1-2	**Cardiac Roentgenology.** New York University, NYC
Mar. 1-3	**Dietetics for Dietitians.** Ctr. for Continuation Study, University of Minnesota, Minneapolis
Mar. 5-7	**Pediatrics for GP's.** Ctr. for Continuation Study, University of Minnesota, Minneapolis
Mar. 5-7	**Fourth Postgraduate Conference in Medicine & Surgery.** Temple Div., University of Texas, Temple
Mar. 5-7	**American College of Surgeons.** Broadmoor Hotel, Colorado Springs
Mar. 5-9	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 5-14	**Mediclinics of Minnesota.** Ft. Lauderdale, Florida
Mar. 5-16	**Radiology of the Gastrointestinal Tract.** Mt. Sinai Hospital, NYC
Mar. 5-16	**Surgical Anatomy and Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 5-16	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 5-17	**Motor Anomalies of the Eye.** New York University, NYC
Mar. 6-13	**Pan American Medical Women's Alliance.** Santiago, Chile
Mar. 7	**Dentistry and Medicine.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 7-9	**Michigan Clinical Institute.** Sheraton-Cadillac Hotel, Detroit
Mar. 8-10	**Eleventh National Conference on Rural Health.** Hotel Multnomah, Portland, Oregon
Mar. 12-13	**American College of Surgeons.** Hotel Marion, Little Rock
Mar. 12-14	**Spring Clinical Conference, Dallas Southern Clinical Society.** Dallas
Mar. 12-14	**Pediatrics.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 12-14	**Refresher Course in Allergic Conditions.** New York University, NYC
Mar. 12-16	**Obstetrics & Gynecology.** George Washington University Hospital, Washington, D. C.
Mar. 12-16	**Symposium on T-B & Other Pulmonary Diseases.** New York University Bellevue Medical Center, NYC

(Continued on page 94)

Editorials

SCOTT COUNTY CENTENNIAL

It is a privilege for the JOURNAL to share in the centennial of the Scott County Medical Society by devoting the scientific section of this issue to papers written by its members. The editors congratulate that Society upon this historic occasion and, on behalf of their readers, extend the hope that the next 100 years will continue to enhance the prestige of the organization.

The Scott County doctors, though not the first to band together, were quite early in forming a society. Five county groups (Polk, Louisa, Des Moines, Lee and Wapello) had been in existence for five or fewer years each, and two others (Mahaska and Marshall) were in the process of being established when the Scott County physicians first gathered at the office of Drs. Witherwax and Carter, in Davenport on October 18, 1856.

Two distinguished gentlemen from Davenport were charter members of the Iowa State Medical Society, founded at Burlington on June 10, 1850, and one of them, Dr. J. M. Witherwax, had been the fourth president of the State Society, in 1854. He had come to Davenport in 1838, shortly after receiving his M.D. degree from the College of Physicians & Surgeons, New York City. The other, Dr. John F. Dillon, was a graduate of Iowa's first medical school, the College of Physicians and Surgeons of the Upper Mississippi, Davenport, and though he practiced medicine for only a very short time, he went on to achieve an interesting and noteworthy record. His article "Rheumatic Carditis With Autopsical Examination" had been the first to be published (1850) in the state's first medical periodical, THE IOWA MEDICAL AND CHIRURGICAL JOURNAL. Because of poor health, he discontinued medical work, studied law, was admitted to the bar and became, successively, district judge, circuit judge and chief justice of the Iowa Supreme Court. In addition, with Dr. W. F. Peck, of Davenport, he helped found the medical department of the State University of Iowa, in September, 1870, and became the first professor of medical jurisprudence there. In 1886, he was made a professor of law at Columbia University, New York City.

Besides the one whom we have already mentioned, there have been other presidents of the Iowa State Medical Society from Scott County. In 1860, Dr. Egbert S. Barrows, who had been working at Davenport since 1836 when the town had no more than 100 inhabitants, became the tenth head of the state organization. Dr. J. W. H. Baker, a charter member of the Scott County Society led the ISMS in 1871, and Dr. James Gamble became the twentieth state president in 1871.

Dr. W. F. Peck, of Davenport, one of the foremost figures of his time, became the twenty-fifth president of the State Society in 1876, being then no more than 35 years old. He had helped establish his town's first hospital, Mercy, in 1869, and when elected he was already well settled as the first dean of medicine and professor of surgery at SUI. He had been made chief surgeon of the Rock Island Lines only a year before.

The fortieth president of the ISMS was Dr. William D. Middleton, of Davenport (1891), who shortly before his election had succeeded Dr. Peck both in the deanship and in the railroad job. Dr. Lawrence W. Littig became the sixty-first president of the ISMS (1912), and Dr. William L. Allen, the sixty-ninth (1920). Dr. Gordon F. Harkness, Davenport's only living ex-president of the State Society, was the eighty-fifth man to head the organization (1935).

Many other Scott County doctors have achieved more than local prominence. One of them was Dr. Carl A. Hamann, who was made a professor of surgery at Western Reserve University, Cleveland, and another of them, Dr. Carl Wiggers, is now a professor of physiology at the same institution. Dr. Wiggers is to attend the Centennial Meeting of the Scott County Medical Society, in Davenport on March 21, 1956.

Dr. Emil Goetsch was an associate professor of surgery and a colleague of Dr. Harvey Cushing at Johns Hopkins, and subsequently he became a professor and head of the department of surgery at the Long Island Medical College, now a part of the State University of New York, in Brooklyn. Dr. Arthur Goetsch served as a professor of anatomy at the University of Chicago and later became an associate professor of surgery at the State University of New York.

At least three other Davenport physicians deserve mention in such an account as this. Dr. W. W. Grant, on April 23, 1883, was the first man to perform an operation for the removal of an appendix under the diagnosis of appendicitis. Dr. Robert J. Farquharson served as the first secretary of the Iowa State Board of Health, from 1880 until 1884. And Dr. C. C. Parry, who had come to Davenport in 1846 and was a charter member of the Scott County Medical Society, exhibited exceptional ability and perserverance as a botanist. His collection of 18,000 classified specimens of 6,800 species is now housed at the Iowa State College, in Ames. One of the Rocky Mountain peaks has been named Mt. Parry.

THAT TWENTY-FIVE DOLLAR LEVY

The members' response to the Iowa State Medical Society's request for an additional $25 in dues for 1955 has been very gratifying indeed. That increase was authorized by the House of Delegates during the special session held in December, 1954, but it was not put into effect until June, 1955. Then, additional funds were required when the Iowa Hospital Association filed a lawsuit in an attempt to secure judicial reversal of a point of view which our Society had taken the lead in upholding. When once a suit has been filed, it behooves an organization no less than an individual to take the steps necessary for defense.

Records will show that from the beginning of the controversy, in 1952, the Society made the most of every opportunity for settling the problem at the conference table. The lawsuit could have been avoided if the Iowa Hospital Association had permitted the transfer of medical service coverages from Blue Cross to Blue Shield. But when the lawsuit had been filed and the future status of all privately practicing physicians had been put in jeopardy, it was incumbent upon the Society to oppose the contentions of the hospital administrators in a court of law.

Litigations such as the one in which our Society was recently a party always involve considerable expense, but our Trustees, our House of Delegates and our other officers were virtually unanimous in thinking that an adverse decision in the Polk County District Court would give Medicine a setback from which it could never recover. If the hospitals were permitted to employ physicians, they undoubtedly would proceed quite rapidly to set up and to staff clinics modelled as nearly as possible upon factory assembly lines, in which the salaried doctors might administer only the kinds and amounts of treatment that the hospital administrators chose to permit.

From the outset, the State Medical Society had taken the position that the Medical Practice Act was a good law, that the Attorney General had interpreted it correctly and that his opinion would stand the test of the courts. So far, the Society has been proved right. There seems to be no reason why the hospitals and the doctors for whom those institutions provide special space and equipment cannot adhere to the decision handed down by District Judge C. Edwin Moore without adverse effect either to themselves or to the public. Rather than causing an increase in the cost of their services to the patient, prompt compliance with the law might very well bring about a decrease. Moreover, that compliance, simply by ending the controversy, would restore full cooperation and thus improve the quality of medical care in the hospitals, particularly in the specialty medical services with which the dispute had at least nominally been concerned.

It is of course true that some segments of the public have opposed the position taken by the Society. It is strange that, instead of the individualized and personalized medical attention which they constantly are telling us that they prefer, people are willing to see a legal opening provided for the establishment of the hospital-centered, assembly-line treatment of ambulatory patients for which the hospital administrators are working. And no less strange is their failure to recognize that in opposing the initial phases of that change, the Iowa physicians are fighting for the system of private enterprise that is held dear by every American worthy of the name!

The controversy has been unpleasant both for its officers and for its members, but the Iowa State Medical Society has been serving the best interests of the public, as well as of the physicians of the United States, in opposing these moves by the hospitals. It is regrettable that somewhat less than all people have recognized that fact, but it is none the less true.

Regrettably, the Iowa Hospital Association has appealed Judge Moore's decision to the Iowa Supreme Court. Thus it appears that our Society's defense, and the inevitably attendant expense, must be continued.

NAUSEA AND VOMITING

Included in a new book THE RELIEF OF SYMPTOMS,[1] is a chapter on nausea and vomiting that makes one realize how far we have come from our loose therapeutic attempts of the past. We used to concentrate our thinking and our efforts on the stomach and prescribe atropine and "stomachics" for the relief of those conditions. Now we realize that although nausea and vomiting seem to stem from the stomach, the real culprit often lurks elsewhere.

Vomiting is impossible without the participation of the vomiting center,[2] which lies in the medulla near the dorsal nucleus of the vagus nerve. Afferent stimuli reach the center from materials circulating in the blood, from the central nervous system, from the cranial nerves, and occasionally from sympathetic and somatic nerves. Efferent fibers are contained in the phrenics, in the abdominal somatic nerves, and in vagus and sympathetic fibers.

During nausea, the stomach is flaccid, and there is often reverse peristalsis in the duodenum. The stomach is usually flaccid in vomiting, too. Relaxation of the cardio-esophageal region is particularly essential for the ejection of material from the stomach. Magendie showed long ago that the essential features of vomiting could be reproduced in animals after the stomach had been replaced by a pig's bladder.[2] Reverse peristalsis in the stomach has been observed only rarely,

1. Modell, Walter: The Relief of Symptoms. Philadelphia, W. B. Saunders Co., 1955.
2. Best, Charles H., and Taylor, Norman B.: The Physiological Basis of Medical Practice, Fourth Edition. Baltimore, Williams & Wilkins Co., 1945.

although violent churning movements may occur. In nausea and vomiting, therefore, the stomach is, in a sense, paralyzed.

It would seem illogical to employ substances such as the anticholinergics, which tend further to immobilize the stomach, or to use procaine, which is supposed to desensitize it but actually does not. Unfortunately, substances such as Prostigmin which might conceivably stimulate the stomach to forward peristalsis seem inefficacious.

Let us, therefore, direct our attack at the *causes* of nausea and vomiting and at the *vomiting center* directly, and not be unduly preoccupied with the organ of vomiting, the stomach, for it plays no more than a passive role.

(1) Barbiturates may be administered to allay psychic influences. (2) Antihistamines such as Dramamine, Bonamine or Merizine seem to act in some poorly understood fashion either to raise the threshold of stimulation or, perhaps, to dampen the central connections between the vestibular mechanism and the vomiting center. These drugs help some patients and are impotent in others, but they are relatively harmless and may be tried early during the course of the symptoms. (3) Chlorpromazine (Thorazine) belongs to the antihistaminic series and is closely related to phenothiazine, a drug which was discarded years ago because of its toxic effects. It apparently acts centrally by "depressing the vomiting reflex."[1] For the time being, it would seem wise to limit its use to refractory cases, pending the further documentation of possible side effects.

REVISION OF T-B MANUAL IS AVAILABLE

The National Tuberculosis Association's publication DIAGNOSTIC STANDARDS AND CLASSIFICATION OF TUBERCULOSIS has just been revised by a committee of the American Trudeau Society, headed by Dr. W. Spence Schwartz, of the V-A Hospital at Oteen, North Carolina, and is now ready for free distribution to all physicians and hospital libraries by the local tuberculosis associations.

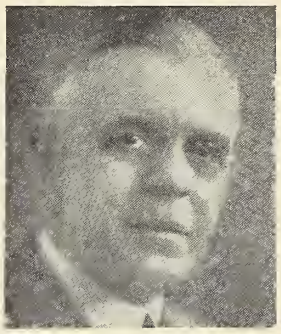
The revised edition contains new sections on the diagnosis of non-pulmonary tuberculosis, fungi causing pulmonary disease in man, and screening classifications for mass X-ray surveys, and the section on the tuberculin test has been enlarged.

If any physician fails to get a copy without requesting it, he is encouraged to call his local tuberculosis association.

Attend the Annual Meeting of the Iowa State Medical Society, April 22-25, 1956, in Des Moines.

EDWARD MORRISON MYERS, M.D., F.A.C.S.
1872-1955
An Appreciation

Iowa medicine lost one of its great leaders in the death of Dr. Edward M. Myers, at Boone on December 11, 1955. Born at Otley, Iowa, May 12, 1872, he devoted nearly all of his years of service to his native state. After graduating from Burlington High School, he earned his Bachelor of Arts degree from Iowa Wesleyan College in 1896 and the degree of Doctor of Medicine at Northwestern University in 1900. Following his graduation in medicine, he served on the house staff of Mercy Hospital, Chicago, for two years, where he came under the inspiring guidance of the brilliant surgeon, Dr. John B. Murphy. He began the private practice of medicine at Boone in 1902, specializing in surgery, and continued there until 1941, when Governor George A. Wilson appointed him superintendent of the State Hospital and School at Woodward, a post which he retained until 1950.



In 1935, Governor Clyde L. Herring made Dr. Myers a member of the Iowa State Board of Health. He served as a member of that body until 1949, during the greater part of that period as its president. Upon his retirement from the Board, he was presented with an embossed scroll expressing his colleagues' appreciation for his outstanding service throughout 14 years.

He served as a trustee of the Iowa State Medical Society from 1930 until 1936, was chosen president-elect in 1937 and was installed as president at the annual meeting in Des Moines in 1938. For all who were present, that meeting at the Fort Des Moines Hotel on the evening of May 12, 1938, remains a memorable occasion. Attired in full evening dress, President Myers presented a striking figure, and his inspiring address on "The Triumphs of Modern Medicine," delivered in choice and eloquent English, left a lasting impression upon the minds of all who were privileged to hear it.

Dr. Myers was also honored with the presidency of the Boone County and the Mississippi Valley medical associations. He was a Fellow of the American College of Surgeons and a member of the American Medical Association. He contributed frequently to medical literature and distinctly advanced the high ideals of the art and practice of medicine in this state.

It was one of life's privileges to have known Dr. Myers, and the charm of his genial fellowship will remain with us while memory lasts.

Walter L. Bierring, M.D.

President's Page

The Executive Council at its January meeting approved a public relations and legislative program developed and submitted by the recently created Planning Committee. The personnel comprising this committee was outlined in our general news bulletin dated January 9, 1956.

The plan approved will be implemented through individual county medical societies, with emphasis on the public-relations and legislative responsibility of individual physicians.

I sincerely hope that we may have the full cooperation of county medical society officers and individual members in carrying out all of our grass-roots legislative and public relations activities this year.

Your cooperation will be sincerely appreciated.

L. R. Offerman, M.D.
President



The Grievance Committee

of the Iowa State Medical Society

We are living in an age when the average person regards medical care as one of his rights. He no longer regards the doctor as superhuman, but he nevertheless expects him to bring forth a miracle drug that will cure the patient's ills at no very great expense, and to do that job so promptly and completely as to relieve the patient of all discomfort and to leave him no residual handicap.

In so far as the advances in medical science have enabled them to do so, physicians here as well as elsewhere endeavor to fulfill those expectations. And as regards payment, they ask nothing from patients who possess little or nothing, and they proportion their fees to the patient's resources in other cases. But when one of those people hasn't been made "as good as new," or when the therapy, even though highly successful, has cost him more than he thinks it should, he complains. His fellow workers, his friends and his relatives hear his story, and as likely as not, they sympathize with him. Thus, even though the doctor may have performed a minor miracle in restoring the patient's health even to a degree, and though the doctor may have encountered and dealt with complications for which he is entitled to additional remuneration, his reputation and the reputations of all doctors are put into jeopardy.

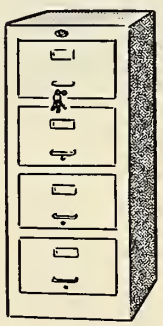
In Iowa, when a patient has a complaint that involves the professional conduct of a doctor of medicine, he is invited to address it to the grievance committee, if there is one, of the medical society in his county, or to the Grievance Committee of the Iowa State Medical Society. That latter body, established in 1950, consists of doctors who make a special effort to consider the facts in each case wholly on their merits. Under no circumstances are they partial to the physician. In some instances, it is true, they conclude that the physician has been entirely right, but when they decide that the complaint is even partially justified, they try to arrange an adjustment in the interests of maintaining good public relations for their profession, as well as in fairness to the particular patient.

Before the Grievance Committee can begin investigating a case in which it is alleged that a patient has been unfairly dealt with, it must receive a letter requesting that it do so and bearing the signature of the complainant. The Committee then makes a thorough study of the matter, informing itself regarding both the patient's and the physician's point of view and getting statements from the other interested individuals, if there are any. When the Committee feels that it has fully explored all available data, circumstances, opinions and attitudes, it decides what recommendations to make.

In most instances, those recommendations are accepted by both the physician and the patient, and the matter ends there. But if the Committee feels that the physician is guilty of unprofessional conduct, it can recommend that the Medical Society take disciplinary action against him, or in even more serious cases, it can refer the case to the Board of Medical Examiners or to the District Court.

TYPES OF CASES

A review of cases brought before the Grievance Committee of the Iowa State Medical Society reveals that 50 per cent of them have concerned fees. The Committee doesn't presume to tell practicing physicians what they should charge, but the rules governing the Committee state that whenever differences over fees cannot be settled by agreement between the doctor and the patient, the Committee shall arbitrate the matter, no more than a majority vote being necessary. Sometimes, in order to settle a complaint, a doctor has been asked to reduce his fee even though the Committee has agreed that it was a just one. But if the complaint has resulted from a misunderstanding on the part of the patient, the Committee tries to give him an adequate and satisfying explanation.



Files of the Grievance Committee of the Iowa State Medical Society are absolutely confidential, but a couple of examples closely resembling actual cases that have been presented may help to show the kinds of problems with which the Committee undertakes to deal.

Let us say that a complaint was registered by a man who was entitled to full service coverage



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by his Blue Shield contract, but had been charged and had paid a fee in addition to the amount paid to the doctor by Blue Shield. In such instances as this, the Grievance Committee explains the situation to the doctor and persuades him to refund the patient's money. This case serves to illustrate the confusion that results when a patient makes incomplete disclosures regarding his Blue Shield status and/or his income when he comes to the doctor for professional service.

Next, let us suppose that a woman had claimed that an oculist had provided her a pair of glasses that she didn't want and couldn't wear because her doctor had made a mistake in writing the prescription. There was a question, however, about whether or not he had erred. The patient contended that she had told him her lenses must be tinted, but the doctor said he had heard her say nothing of the sort and that in his examination he had found no reason for requiring that they be other than clear. Upon her return to him she said her reason was that her skin looked better through tinted glasses and that she had always worn that kind.

The doctor could see no reason why she shouldn't wear tinted lenses and offered to give her a new prescription directing the dispensers to provide them, but the patient wanted more relief than that. She contended that since she would be billed for the first pair, the doctor should pay the $20 that the dispensers wanted for the tinted lenses.

In a case such as that, the Grievance Committee would point out to the patient that the burden had been upon her to make it clear to the doctor that she wanted tinted lenses, and it would advise her to accept the doctor's offer of a new prescription.

Many grievances are brought about by a physician's exerting pressure to collect a delinquent account. Others could have been avoided if the doctor had taken greater care in explaining to his patient the need for special tests or consultations that increased the total amount that the patient was being asked to pay. It is particularly important that a surgeon should explain in advance either to the patient or to a responsible relative just why the proposed procedure is necessary.

Other complaints brought before the committee have reflected inadequate explanations, patients' misunderstanding of the physician's responsibilities and ethics, and other inadvertent mistakes either by the doctor or by the patient. A few charges of malpractice have been presented to the Committee, but to date, none have been substantiated.

In addition to its task of helping clear away dissatisfaction, the Grievance Committee tries to do a job of teaching. It does its best to show the physician that he is himself responsible, in a major way, for the maintenance of public good will toward Medicine as a whole. And, on the other hand, it shows laymen that the medical profession as a whole is very much interested in making certain that all patients are treated with scrupulous fairness.

Almost without exception, persons interviewed by the Grievance Committee have commented favorably upon the philosophy that the Committee represents and on the methods that it employs in its efforts to achieve accord between doctor and patient.

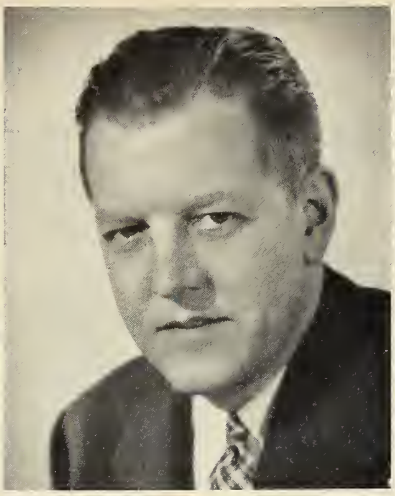
Coming Meetings

(Continued from page 86)

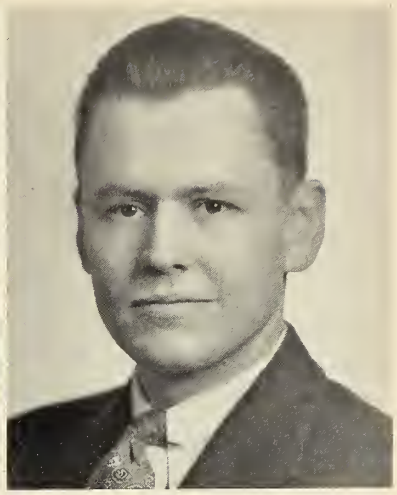
Mar. 12-23	**Fractures and Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 12-23	**Electrocardiography & Heart Disease; Basic Course.** Cook County Graduate School of Medicine, Chicago
Mar. 12-23	**Office & Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Mar. 15-16	**Hematology.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 16	**Lung Disease.** Academy of Medicine of Cleveland & Cuyahoga County.
Mar. 19 (10 hrs.)	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Mar. 19 (40 hrs.)	**Gastroscopy; Basic Course.** Cook County Graduate School of Medicine, Chicago
Mar. 19-20	**Clinical Cardiology.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 19-21	**Recent Advances in Pharmacology of Anesthetic Agents.** University of Pennsylvania, Philadelphia
Mar. 19-21	**Fourth Annual Spring Postgraduate Assembly.** University of Nebraska College of Medicine, Omaha
Mar. 19-21	**Cardiovascular Diseases for General Physicians.** University of Minnesota Ctr. for Continuation Study, Minneapolis
Mar. 19-22	**Eighth Annual Scientific Assembly, AAGP.** District of Columbia National Guard Armory, Washington, D. C.
Mar. 19-23	**Electrocardiography.** New York University, NYC
Mar. 19-23	**Ophthalmic Pathology.** Armed Forces Institutes of Pathology, Washington, D. C.
Mar. 19-23	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 19-24	**Surgery of the Eye.** New York University, New York City
Mar. 19-24	**Surgery of the Hand.** New York University, New York City
Mar. 19-27	**Radiology of the Chest.** Mt. Sinai Hospital, NYC
Mar. 19-28	**Medical Care of Atomic Casualties.** Walter Reed Army Medical Center, Washington, D. C.
Mar. 19-30	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Mar. 19-30	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 22-23	**Bedside Pediatric Seminar.** University of Nebraska College of Medicine, Omaha
Mar. 23	**Cardiac Arrest.** New York University, NYC
Mar. 24-25	**American Psychosomatic Society.** Sheraton Plaza Hotel, Boston
Mar. 26-27	**Eye Surgery Refresher Course.** University of Toronto
Mar. 26-30	**Pathology of the Oral Regions.** Armed Forces Institutes of Pathology, Washington, D. C.
Mar. 26-30	**Geriatrics.** George Washington University Hospital, Washington, D. C.
Mar. 26-30	**Measurement of Pulmonary Functions in Health and Disease.** Boston City Hospital
Mar. 26-Apr. 6	**General & Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Mar. 27-28	**Symposium on Malignancy (Neurogenic Carcinoma).** Indiana University, Indianapolis



John S. DeTar, M.D.



E. C. Holmstrom, M.D.



Tague C. Chisholm, M.D.

ANNUAL MEETING SPEAKERS

An extraordinarily fine group of speakers will address the members of the Iowa State Medical Society at the organization's annual meeting in Des Moines, April 22-25, 1956. Dr. John S. DeTar, of Milan, Michigan, who takes office as president of the American Academy of General Practice on March 19, is to deliver two lectures. At the general session on Wednesday morning, April 25, he will speak on "Cancer Detection in the Office of the Generalist," demonstrating the typical cases most often encountered and discussing the preferred methods for diagnosing and treating them. In the address which he has prepared for the annual banquet meeting, Dr. DeTar will go into some detail in pointing out what he sees as the recent and marked improvement in popular magazine articles on medicine and doctors.

Dr. E. G. Holmstrom, a 1938 medical graduate of the University of Minnesota who is now professor and head of the Department of Obstetrics and Gynecology at the University of Utah College of Medicine, will speak to the section meeting on obstetrics, Tuesday afternoon, on "Functional Uterine Bleeding." He will discuss methods for the management of that condition in various ages of women, and he will present tabulations of the results that he and his associates have achieved. In his address to the general session on Wedneday morning, Dr. Holmstrom will point out the ways by which, in many instances, obstetricians and general practitioners who do obstetrics can help to prevent the complications and emergencies which bring about premature birth and neonatal death.

Dr. Tague C. Chisholm, clinical assistant professor of surgery at the University of Minnesota Medical School, will address the general session Monday morning on the differential diagnosis of hydroceles and hernias, entities that he says are among the most common in children. He says that his discussion will be down-to-earth and completely practical. "Tumors in Infancy and Childhood," will be the topic on which Dr. Chisholm will talk at the section meeting on pediatrics Monday afternoon.

ERSKINE LECTURER



Hayes Martin, M.D.

Dr. Hayes Martin, a 1917 graduate of the SUI College of Medicine who is now an associate professor of clinical surgery at Cornell University's Medical College and surgeon at five New York City hospitals, is to deliver the Arthur Erskine Lecture Tuesday morning on "The Diagnostic Significance of a 'Lump in the Neck.'"

Dr. Martin is to address the surgical section, Tuesday afternoon, on the various anatomic forms and stages of mouth cancer and of benign diseases resembling cancer that may present a problem in differential diagnosis.

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

VASCULAR SURGERY (SURGERY IN WORLD WAR II, MEDICAL DEPARTMENT, UNITED STATES ARMY), ed. by *Daniel C. Elkin*, M.D., and *Michael E. DeBakey*, M.D. (Washington, D. C., Office of the Surgeon General, Department of the Army, 1955. $4.25).

PLANNING NEW INSTITUTIONAL FACILITIES FOR LONG-TERM CARE, by *Edna E. Nicholson*, Executive Director, The Institute of Medicine of Chicago. (New York, G. P. Putnam's Sons, 1955. $4.50).

BOOK REVIEWS

CLINICAL ANALGETICS, by *E. G. Gross*, Ph.D., M.D., and M. J. SCHIFFRIN, Ph.D. (Springfield, Ill., Charles C Thomas, 1955. $3.00).

This monograph in American Lectures in Pharmacology, as its name implies, gives a very complete discussion of most of the drugs used for the relief of pain. The stated purpose is to "provide a concise, practical guide on analgetics for the general practitioner, dentist, pharmacist and medical student."

The book fulfills its purpose very well since it covers the salicylates and related compounds, the opiates, the opioids or opium-like drugs, the opiate antagonists and the many local anesthetics. It describes the chemistry, pharmacology, toxicity, indications and contraindications of each.

Another class of pain-relieving agents, namely the general anesthetics, is not included in the text. Neither are there any discussions of the various physical methods used for the relief of pain.

The authors have done a good job of putting down in concise form a great deal of information that would otherwise require reference books on chemistry, pharmacology, toxicology and medicine.—*E. P. Lovejoy*, M.D.

CARDIOVASCULAR SURGERY: STUDIES IN PHYSIOLOGY, DIAGNOSIS AND TECHNIQUES (Proceedings of the International Symposium held at Henry Ford Hospital, Detroit, Michigan, March, 1955), ed. by *Conrad R. Lam*, M.D. (Philadelphia, W. B. Saunders Co., 1955, $12.75).

An international symposium on cardiovascular surgery was held at the Henry Ford Hospital, in Detroit, on March 17, 18 and 19, 1955. It had been set up by Dr. Conrad R. Lam, together with an advisory committee consisting of Dr. Richard J. Bing, of Birmingham, Alabama, representing the field of applied cardiac physiology; Dr. Stanley Gibson, of Chicago, a pediatric cardiologist; Dr. Emile Holman, of San Francisco, and Dr. Michael DeBakey, of Houston, who have taken particular interest in cardiovascular disease.

Participating in the symposium were 60 of the outstanding men in various phases of the work in cardiovascular surgery, many from outside the United States. There were also 17 discussants, including men from Canada, South America and Europe. Attendance at the meeting was by invitation only, and the final registration included 478 doctors from 35 states and 22 foreign countries.

Rather than a postgraduate program, the symposium was set up to provide opportunities for the presentation of new and controversial work. One day was devoted to the problems of congenital heart disease, another to acquired heart disease, and a half day to surgery of the aorta and other arteries. The volume contains the material thus presented, and the papers have been amply illustrated.

The foreword is the text of an address delivered by Sir Russell Brock, of Guy's Hospital, London, an outstanding cardiac surgeon. In the rest of the book, a wealth of material is presented by others of the authorities who addressed the sessions.

It is to be hoped that more volumes such as this may be published from time to time in order that every interested physician may keep abreast of the rapid developments in this field.—*Ralph A. Dorner*, M.D.

CARDIAC DIAGNOSIS: A PHYSIOLOGIC APPROACH, by *Robert F. Rushmer*, M.D. (Philadelphia, W. B. Saunders Co., 1955. $11.50).

It is no criticism of this stimulating work to say that it raises more questions than it answers, nor to observe that it is four-fifths approach and one-fifth diagnosis. This new attack upon the differential diagnosis of heart disease has been called for by many developments both in the research laboratory and in the operating theatre.

The smug confidence of the diagnostician in his ability to differentiate valvular lesions by physical examination has been badly shaken by the surgeon's findings at the operating table. At the same time, the bold surgical attack upon many heart defects has increased the need for precise diagnosis. What is undertaken in this volume is to outline the basic physiologic principles underlying cardiac function or malfunction, and to show that widely different disease processes may have very similar functional expressions.

The abandonment of the empirical approach, with its rather rigid separation of disease entities, is apt to make the veteran clinician uncomfortable. And it does nothing for his complacency to find both the backward and forward failure theories dismissed as having "serious discrepancies." But these are refreshing and challenging concepts which are justification enough for the new approach.

The first two sections of this book are devoted to the function and the regulation of the cardiovascular system. The third deals with the cardiac reserve and the concept of congestive heart failure. Methods used in cardiac diagnosis are considered in part four, including

the role of pressure measurements, x-ray, cardiac output determinations and electrocardiography. The fifth section deals with the diagnosis of cardiac disease, principally by illustrating the application of physiologic principles to specific problems such as myocardial ischemia, myocarditis and valvular disease. There is an excellent chapter on congenital heart disease, again stressing the altered physiology.

Illustrations are abundant and excellent, and the bibliography is timely. The general mechanical excellence of the volume is marred by a number of typographical errors.—*Herman J. Smith,* M.D.

MENTAL ILLNESS

TOXIC PSYCHOSES

The toxic psychoses are by far the most numerous of the psychotic reactions encountered by the physician. They often occur during the course of an illness, after operative or diagnostic procedures or when certain medications have been prescribed. The physician who has treated the patient must then deal with a rather florid but usually transient mental illness which may have an adverse effect upon the physical well being of the patient. The relatively unvarying symptoms presented are the outgrowths of a disturbed cerebral metabolism or intoxication.

The patient at first presents some evidences of confusion, bewilderment or transient disorientation, but as the psychosis progresses, disorientation is often complete. The patient is usually restless, he speaks in an incoherent or dream-like manner, and he shows marked apprehension, fear or panic. He has terrifying dreams, he misidentifies people and objects, and he often is convinced that he is being persecuted, poisoned or otherwise harmed. He then reacts to those misinterpretations and hallucinations by shouting, becoming more agitated, obstreperous or combative, or even by making disorganized attempts to escape the threatening situation.

To terminate the psychosis, the physician must recognize the relation between the toxic substance and the psychosis and must take prompt steps to eliminate the toxin. These psychoses often occur in cataract, hip-pinning and prostatic operations; in febrile states, cardio-renal and cardio-respiratory diseases; in uremia, hyperthyroidism, gout, the puerperium and vitamin deficiency states; and when barbiturates, benzedrine, opiates, cortisone or ACTH have been used.

Careful history and physical and laboratory examinations often point to the cause of the psychosis and enable the physician to start specific treatment. But in the meantime and in those instances where no specific agent can be implicated, there are many helpful measures that can be employed.

Patients usually show evidence of dehydration, they show a mild elevation in temperature, and they frequently have twitchings of the hands and lips. Measures to correct the nutritional deficiency and the dehydration are paramount. Any known toxic drugs should be discontinued immediately, and all practical measures should be used for the reduction of fevers.

Because of the suicide risk, the patient should never be left unattended, and whenever possible it should be a relative who stays with him, for a familiar person often exerts a calming influence. On the other hand, no person who is involved in the patient's delusional system should be allowed to enter the room. Lights should be left burning at all times, and the room should be cleared of all extraneous furniture, for fear of the patient's misidentifying it and exhibiting an untoward reaction to a seemingly innocuous object. The room should be located on the first floor or there should be bars on the windows so that the patient's panic-like attempts to escape will not end in disaster.

All diagnostic, therapeutic or nursing procedures should be calmly and patiently explained to the patient so that his fears and apprehensions may not be increased.

Sedatives must occasionally be employed, but they should be used sparingly. The sedative of choice will, of course, depend upon the etiologic agent or the underlying illness. Paraldehyde and chloral hydrate are usually the safest drugs, for they act quickly, they are rapidly eliminated and they have less tendency to cloud the level of consciousness additionally. Leather and sheet restraints often accentuate the patient's agitation and combativeness and thus defeat their purpose.

Soothing tub baths at 96°F. may help calm the patient.

According to recent reports, parenterally administered chlorpromazine, Serpasil and Frenquel produce a rapid clearing of the psychosis. But those drugs must be used with great caution, since they markedly potentiate the action of barbiturates, alcohol and narcotics.

Through these measures, many of the psychotic reactions may be terminated or readily controlled. The psychoses often clear in a few days; occasionally in a few weeks. Psychiatric hospitalization is rarely required, but the protracted cases can often be handled best in a closed-ward situation. At times, electro-therapy is needed so as to clear the patient of his psychotic thinking and acting after the toxins have been eliminated.

Many of the toxic psychoses can be prevented. The aged, dehydrated, chronically ill or emotionally unstable tend to make up the great majority of such patients. By carefully supervising the fluid balance and nutrition of all of his patients, by using drugs judiciously, and by carefully explaining proposed diagnostic and operative procedures so that patients may be prepared emotionally, the physician can greatly reduce the possibilities that a toxic psychosis will occur.

Iowa Academy of General Practice

AAGP SCIENTIFIC ASSEMBLY

At the Annual Scientific Assembly of the AAGP, in Washington, D. C., March 19-22, many hours of good educational material is to be presented by well-known teachers. The program is to cover many phases of medical practice with emphasis on the particular things which are not only of interest but also essential to the GP in his present-day practice.

Starting at 1:30 p.m. on March 19 a panel discussion 90 minutes in length on "Disturbances and Disorders of Demeanor" will take up (1) juvenile delinquency and (2) adult deviations. Under the second of those headings (a) psychopathic personalities, (b) sexual deviates, (c) habitual criminals, (d) neurotics and (e) narcotic and barbiturate addicts will be considered. Next, there will be a presentation thirty minutes in length on the subject "Medicine and Religion." So far as scientific meeting programs are concerned, this is an innovation, but it is a rare physician who has never sent a patient to see his clergyman. "The Changing Pattern of Disease" is the final topic for the first day. It will tend to bring together the present-day concepts of disease, the influences of stress and emotions, and new therapies.

The program for the second day, March 20, is to start with "Laboratory Aids in the Diagnosis of Fevers." The presentation is designed to assist physicians in improving their methods for proving or disproving their diagnoses. The other topics that are to be considered during that morning session are "Therapy of External Ocular Diseases," "Wound Repair" and "Tumors and Swellings of the Neck." The lecture on the last-named of those subjects will direct particular attention to the pitfalls of diagnosis.

The entire afternoon of the second day will be devoted to cardiology. The first 90 minutes is to be given over to a live clinic at which all of us should gain some encouraging information as regards the curability of cardiac disorders. The presentation on atherosclerosis that has been scheduled for 4:00 p.m. will include a discussion of experimental work and some suggestions about what can be expected in the future. The final lecture, on cardiac emergencies, will take up the problem of differential diagnosis and will outline some recommendations for emergency therapy.

The presentations starting at 9:00 a.m. on the third day are to be in the field of urology and gynecology. The first of them is to deal with diagnosis and proper treatment of obstructive lesions in the young male. The second will deal with urology in the elderly female and will include suggestions regarding problems that often cause a great deal of worry for physicians. A new concept in diagnosis and proper management is expected to simplify the handling of these perplexing conditions.

At 1:30 p.m. on the third day, a symposium on obstetrics is to be conducted. Since general practitioners deliver a large number of babies each year, the 90 minutes that are to be devoted to this subject will be especially valuable to all who attend. We shall be encouraged to reexamine our procedures critically, and we shall be given some new ideas.

For those of us who have heard a variety of ideas about the diagnostic signs of "worms," the discussion of "Intestinal Parasites" will provide some authoritative and clarifying information.

The final presentation, "Contributions of Veterinary Medicine to Human Medicine" will be extremely interesting to all listeners, and especially to GP's who are interested in animals of any kind. It is not unlikely that some of the facts to be presented will be surprising.

The last day's program is to start with a live clinic on the management of patients with disabling diseases. In view of the increase in the numbers of patients of this type, this presentation alone should repay doctors for their effort in attending the Assembly. Afterwards, there is to be a paper on thrombocytopenia that undoubtedly will be valuable.

The final morning lecture will encourage doctors to look toward the future, and will help them to know what to expect in the way of medical developments. Sometimes it is hope for the future that gives men the boost that they must have if they are to carry on.

Conducted tours of the National Institutes of Health, which are to be available during the afternoon following the March 21 scientific sessions, will give the visitors an insight regarding the work

that is being done in medicine by the federal government.

All AAGP members are encouraged to attend the Annual Scientific Assembly if they possibly can. If you plan to go, it is necessary for you to get your hotel reservations now. A form on which you can request them appears on page 133 of the December, 1955, issue of GP, and you should start planning to be away from your practice during the third week of March.

SUI REFRESHER COURSE FEBRUARY 15-18

The detailed program of the SUI Refresher Course for General Practitioners, to be held at Iowa City February 15-18, appeared in this department of last month's JOURNAL OF THE IOWA STATE MEDICAL SOCIETY. The arrangement of lectures and discussions is such that doctors who cannot arrange to be present for the entire conference can profit as fully as possible from any one or two days of meetings. IAGP members who are short Category I credits have an excellent opportunity to make up their deficiencies, but this course is not just for Academy members alone. All physicians in the state will be happy that they attended it.

Make your reservations now. Send in the registration slip that is to be found on page 9 of your December copy of HAWKEYE GP NEWS.

DR. COLEMAN GETS AMA APPOINTMENT

The Board of Trustees of AMA, on November 27, appointed Dr. F. C. Coleman, Des Moines pathologist and chairman of the ISMS Legislative Committee, to succeed Dr. Joseph D. McCarthy, of Omaha, as a member of the AMA Committee on Legislation. Since Dr. McCarthy resigned in the middle of a term that will end in December, 1957, Dr. Coleman's present appointment will terminate at that time.

ELECTROCARDIOGRAPHY SHORT COURSE

The University of Nebraska's first annual EKG course is to be presented on February 13, 14 and 15 until noon. The clinical use of the standard 12-lead electrocardiogram will be covered. Newer technics in interpretation will be stressed. Arrhythmias, blocks, strain, hypertrophy and myocardial infarctions will be emphasized. Fifty "unknown" electrocardiograms will be read by guest lecturers.

Attend the Annual Meeting of the Iowa Medical Society April 22-25, in Des Moines

POSTGRADUATE COURSES AT MINNEAPOLIS

The University of Minnesota's Department of Postgraduate Medical Education announces the following short courses to be held at the Center for Continuation Study on the Minneapolis campus. Advance registrations are encouraged.

Feb. 13-15	Recent Advances in Internal Medicine for Internists
Feb. 16-18	Cancer Detection for General Physicians
Feb. 27-29	Eye, Ear, Nose and Throat for General Physicians
Mar. 1-3	Dietetics for Dietitians
Mar. 5-7	Pediatrics for General Physicians
Mar. 19-21	Cardiovascular Disease for General Physicians
Apr. 9-11	Endocrinology for General Physicians
Apr. 12-14	Gynecology for Gynecologists
Apr. 16-18	Radiology for General Physicians

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The nineteenth annual meeting of the New Orleans Graduate Medical Assembly will take place at the Municipal Auditorium there February 27-March 1. Eighteen leading authorities from throughout the United States are to constitute the faculty. On March first, an optional tour by commercial airlines will leave New Orleans for San Juan, St. Thomas, Port au Prince, Kingston, Panama City and Guatemala City, and will return to this country on either March 24 or March 30.

ANNUAL HEART CONFERENCE

The rheumatic fever prevention program of the Iowa Heart Association and a review of the accomplishments of the work-simplification program will be discussed at the Annual Heart Conference to be held on February 8 at the Kirkwood Hotel, Des Moines.

HAWAIIAN CENTENNIAL

Members of the Hawaii Medical Association are to celebrate their organization's one hundredth anniversary April 22-29 in proper Hawaiian as well as medical fashion. There will be a short but worthwhile professional program on Monday and Tuesday mornings, a spectacular centennial celebration pageant on Tuesday night and a traditional *luau* (Hawaiian feast) on Thursday night, with Polynesian entertainment. Interested physicians will find that the Hawaiian celebration immediately follows the Los Angeles meeting of the American College of Physicians. Reservation forms are available at the office of the Hawaii Medical Association, 510 South Beretania Street, Honolulu 13.

BLUE CROSS



BLUE SHIELD

A Report of the Blue Shield Physician Relations Department

A major function of the Blue Shield Physician Relations Department consists of keeping the doctors of Iowa informed, not only on administrative procedures and benefits of Blue Cross and Blue Shield, but more importantly, on the proposed changes in Blue Shield offerings to the public.

The House of Delegates of the ISMS asked the Blue Shield Board to develop a new and more realistic plan, and for that purpose a Blue Shield Medical Advisory Committee has been at work with representatives of various specialty groups.

In our efforts to keep doctors informed, we have scheduled at least one meeting in each of the councilor districts. Some districts have had more than one, so that there could be free exchange of information on subjects vital to the medical profession and to the general public.

Furthermore, our representatives have made many visits to the offices of individual doctors. They made 3,123 such visits last year, to talk with doctors and their office personnel about existing problems and anticipated changes in Blue Shield.

Our representatives appeared at 12 county medical society meetings and at 3 hospital staff meetings. An estimated 615 physicians were present at those gatherings.

In 1955, Blue Cross-Blue Shield sponsored 26 meetings for doctors' secretaries in cooperation with the Iowa State Medical Society and the county medical societies. The secretaries in attendance numbered 768. Those meetings met with wide approval of the profession, for a well-informed secretary can be of material assistance to her employer and to his patients on details of Blue Cross and Blue Shield contracts. Recently, we have postponed scheduling those meetings, thinking it best to wait until the anticipated changes in Blue Shield have been made.

Last year Blue Shield paid the profession $5,046,705.53, for a total of 163,351 services. There were 208,669 Blue Shield contracts, covering a total of 530,169 individuals.

Your Blue Shield President Reports:



More or less generally, the public has been insisting upon more comprehensive coverages than the ones which Blue Shield now offers. In particular, many people think that the Plan should take a step toward providing prepayment for preventive medicine or early detection of disease, by means of diagnostic benefits.

Many doctors feel that Blue Shield ought to pay for diagnostic procedures such as x-ray, laboratory tests and electrocardiograms no less when they are carried out in their own offices than when they are performed in a hospital.

Although we are inclined to agree with them, the facts are that when such services performed in the doctor's office or in the patient's home have been paid for, the results have been almost uniformly disastrous for the insuror. Commercial carriers have had that experience no less than Blue Shield. Excessive utilization resulted in higher costs than had been anticipated.

But with limitations upon the use—or one might say *abuse*—of these diagnostic procedures, it should be possible for us to offer coverage for them when they are performed in doctors' offices. Consequently, Iowa Medical Service is considering the development of a rider which would employ a deductible or co-insurance feature and other limitations such as a ceiling on claim payments. With controls of those types, other forms of insurance appear to work out well.

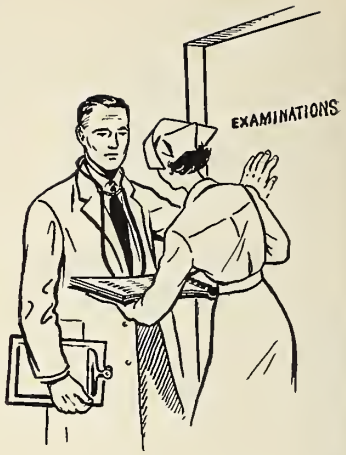
Some guesswork will be necessary in our arriving at a premium rate, at the amount deductible and at the ceiling on payments, but with careful scrutiny of claims and with cautious administration, our experience may not be too unsatisfactory.

A program along these lines is being developed and will be presented shortly for the consideration of your Board of Directors.

Martin J. Olsen M. D.

President

THE DOCTOR'S BUSINESS



Make Your Office Attractive

MILLARD K. MILLS

WATERLOO

It is gratifying that more and more doctors are becoming concerned about the appearance of their offices. But there are still far too many who are seemingly content with dowdy ones. Except for the impression he got when he talked with your secretary over the phone, the typical patient forms his first impression of you when he enters your outer office. That idea is one which you will have to "live up to," or "live down."

Patients want to find their doctor's office attractive. Its good looks can make them feel that he is progressive and up to date, and the longer a physician has practiced, the more important it is that he encourage that feeling. Attractiveness also suggests that the doctor wants to make patients' visits to him as pleasant as possible.

Besides an attractive office, however, you will want one that is convenient and practical for you. Let's consider the reception room. It belongs to your patients. You want it to be a place where time will pass quickly and pleasantly as they wait to see you.

CHOOSE COLORS CAREFULLY

The size of the room will govern your choice of colors, furniture and accessories. If it is small, choose "cool" background colors that tend to enlarge it. If it is large, you have more freedom in selecting colors. But because the room should be soothing, remember to avoid too much variety and brilliance.

Mirrors, murals and picture windows also increase the size of the room and help to make it attractive. Drapes are a "must." They may match the walls to make the room appear larger, or they may contrast with them to add warmth and life. But be sure that they are practical, and see to it that they are cleaned regularly.

Furniture should be selected for durability, practicality and attractiveness. Chrome, wrought iron, plastic, fiberglass and other new materials have made the problem of satisfactory furniture for the medical office almost non-existent. These furnishings are inexpensive, easily cleaned and very durable. Let your selection of furniture depend upon the seating capacity you need for your patients.

Attention should be given to floors. Although carpeting in the reception room is very desirable, it is more difficult to keep clean and wears out more quickly than do linoleum blocks, plastics and tiles. Terrazzo floors are most durable, but they are noisy.

ANTICIPATE PATIENTS' NEEDS

Planters and pictures add warmth and interest. Since some of your patients smoke, be sure there are enough ash trays, and be sure to replace them if they become chipped.

It is important that you have adequate lighting in your reception room. Because lamps can add a great deal of beauty to a room, select them carefully. Indirect lighting is popular, but keep in mind that many patients will be reading—that is, if you provide desirable reading material for them. Keep your magazines in covers on a rack to encourage patients to handle them carefully and to replace them.

If your patients include children, provide something especially for them. A small table and chairs, good children's books, plastic toys and the like will endear you to the children and to their parents.

Finally, remember that though patients can understand that the traffic in a doctor's office causes a certain amount of dust, nothing disturbs them more than a look of untidiness and dirtiness in a medical office. Plastic furniture, drapes, blinds, window sills, lamp shades, pictures, ash trays, bottoms of chairs, etc., should be carefully and regularly cleaned.

Frequent changes in the accessories in your reception room promote real interest, and a periodic paint job does wonders. Don't underestimate the importance of the appearance of your office to the success of your practice!

Mr. Mills is general manager of Professional Management.

WOMAN'S AUXILIARY NEWS

MRS. EDW. B. HOEVEN, *Woman's Editor*
224 East AltaVista, Ottumwa

MRS. WILSON WOLFE, *Asst. Woman's Editor*
N.E. Elm Street, Ottumwa

LINES FROM THE PRESIDENT

The deepest tenderness a woman can show to a man is to help him to do his duty.—Mulock

It has been said that behind every successful man stands a woman offering words of encouragement and praise. One of the greatest men of modern medicine and a man without parallel in our generation is Dr. Albert Schweitzer. When he decided to give his life to the service of humanity, he married Helen Breslau and, in 1913, sailed with her to French Equatorial Africa. She has been there by his side, doing her bit to help him to carry out his life's dream.

Most men who choose medicine for a career do so because of an intense desire to devote their lives to the service of mankind. In looking for a wife and partner to share in his life work, such a man chooses a girl who has the particular qualities that will make her a good doctor's wife. She must be a person who can cope with the special vicissitudes that beset a doctor and his family. Sir William Osler aptly referred to medicine as a "jealous goddess," and he was right. But conflict can be avoided if the doctor's wife makes herself as much a devotee of medicine as is her husband.

When you married your doctor husband, your marriage vows had a double significance. You became his partner "in sickness and in health" not only for each other but for the rest of mankind. By implication, you promised to make his Hippocratic oath a part of your philosophy. His medical ideals became yours too—"so long as ye both shall live."

Being a good doctor's wife is both a privilege and a responsibility. She should relieve her husband of as much work and worry as she can, without interfering with his employees and the routine for which they are responsible. Because your husband hasn't time for such things and is inclined to give his patients too much of himself, you must look after his health and his diet. Learn to anticipate his needs, and encourage him to rest at the odd moments when he is at leisure. Be courteous always when you answer the phone, and be meticulous when you take messages for him. Encourage him when he feels inadequate or unappreciated. Avoid asking for luxuries when you know that collections have been poor. Encourage him to take extension courses and to keep well read on the advances in medicine. Live by *his* routine; don't insist upon yours. Don't let yourself feel that you are sacrificing a social life for medicine's sake. You are greatly enriched spiritually, though at times you may not realize it.

Learn to enjoy the recreations that your husband prefers. He needs relaxation. Your home must run smoothly to provide him a restful haven of quiet beauty, affection, understanding and tolerance. He will reciprocate your thoughtfulness by giving you kindness, love and solicitude. The role of doctor's wife is not easy, yet there are compensations. Each of us who have been chosen can take pride in having a share in the noblest of all professions.

Each of us must, of course, do many other things in addition to the ones that I have enumerated—things that are of supreme importance to our doctor husbands and to Medicine. Almost every one of us has children for whose care and rearing she must far too often take virtually sole responsibility. And as a part of the job which every doctor's wife undertakes, each of us must share in community activities, constantly aware as she does so that every move she makes is being scrutinized and quite possibly criticized. Her associations should promote public health and build good will for the medical profession.

On the Woman's Auxiliary and on its individual members rests the major burden of molding the right public attitude toward doctors. But the doctor's wife can also further good public relations for medicine through the civic, religious and educational groups and the health organizations to which she has access. She has more opportunities than her physician husband to mingle with people and to explain the aims of the medical profession. It is she who can do most to correct public misunderstandings that have resulted from misinformation or lack of information about the positions which doctors have taken on public issues.

In addition, the doctor's wife who develops interests outside her home makes herself a more stimulating companion for her husband and for her children than she would otherwise be. That those outside interests should be civic and educational, rather than merely social, goes without saying. Because too much social life does to the mind what too much whipping cream does to the hips, each of us should give a fair percentage of her leisure time to the Auxiliary and to the other sorts of community work that she can find for herself.

The job of being a doctor's wife, his dietitian, his part-time secretary, the guardian of his health,

UNIVERSITY OF MARYLAND
LIBRARY
Founded 1813

the mother of his children and his principal public relations representative is a tremendous one. Where can she learn how best to fulfill her duties? —through her continuing association with other doctors' wives, her colleagues, in her county, district and state Auxiliary. Comparing notes with them will give her courage, and exchanging ideas with them will give her a wealth of constructive suggestions. Above all, the Auxiliary's projects are the ideal means for doctors' wives, together, to accomplish the tasks for which their husbands simply can't find time.

MRS. CHARLES H. FLYNN
President

REMINDERS REPEATED

To county presidents and secretaries:

1. Hold elections in your county Auxiliary for 1956, and send a list of your new officers to Mrs. Robert P. Mason, secretary.
2. For the Annual Meeting, elect one delegate for each 25 of your members. Send the list to Mrs. Hazel Lammey.
3. Send your necrology list to Mrs. Charles H. Flynn.
4. Collect dues and send them to Mrs. E. A. Vorisek.
5. Make gifts to AMEF in memory of loved ones. Send checks to Mrs. Harold Spillman.
6. Subscribe to the BULLETIN ($1). Send checks to Mrs. F. B. Leffert.
7. Make an extra gift to the Nurses Loan Fund. Mrs. E. A. Larsen is state chairman.
8. If you haven't held a district meeting, plan to hold one soon. Your president would like to be invited to attend it and to meet the doctors' wives of your area.
9. Send your recommendations for next year's work on the state level to Mrs. D. H. King.



COUNTY AUXILIARIES

Mahaska

The Mahaska County Auxiliary met on Tuesday, December 15, for a one o'clock luncheon at the Downing Hotel, Oskaloosa. Mrs. G. S. Atkinson, the president, read a letter from Mrs. H. A. Spilman, co-councilor of District 9 asking for a consensus of opinion from the membership on the idea of holding a district meeting. All present felt that such a gathering would be most desirable and pledged their cooperation.

A Christmas basket was given to a needy Oskaloosa family by the group. A one-year subscription to the BULLETIN was given to the Public Library, and Mrs. Robert Collison was appointed BULLETIN chairman to report interesting items to that magazine.

The Mahaska County chapter will retain its present officers and committee members until January, 1957.

Page

The Page County Auxiliary recently presented sterling silver spoons to the infant children of Dr. and Mrs. Kenneth Jensen and Dr. and Mrs. Carl Catlin.

Mrs. Charles Flynn, president of the State Auxiliary, was a guest of the Polk County Auxiliary in Des Moines on January 9, and on January 19 she was a guest of the Dallas-Guthrie Auxiliary at Perry.

Mrs. Flynn wishes to extend her thanks to the many friends who sent Christmas greetings to her and her family, and also for the nice comments on her cookie recipe.

Polk

Mrs. C. H. Flynn, of Clarinda, state president, and Mrs. A. E. Archer, of Fort Dodge, fifth district councilor, were honored guests at the January 9 meeting of the Polk County Medical Auxiliary in the Garden Room of the Hotel Kirkwood, Des Moines. A movie entitled "In These Hands" composed a principal part of the program.

TODAY'S HEALTH MAGAZINE

The Exclusive Clubs will be organized in January. Let's all work hard to see to it that our own local chapters are in the club. Last year 18 Iowa counties made the Club. Can we double that number this year?



NEWS AND VIEWS

Controversial—ought that word to be used as an epithet? Why have we begun to give it a derogatory meaning?

On all sides we hear *controversial* so used by pseudo-intellectuals, by compromisers, by people who seek to becloud an issue, by good—though timid and fearful—people who look upon every minority as a threat to things as they are and as they must remain. Books, plays and speeches that tell the truth as their authors see it are labelled "controversial" by those who hesitate to use a stronger word. They are men and women who have forgotten the basic characteristics of our country's most revered figures, the leaders who made America great.

Are our fellow citizens being brain-washed into a neurotic fear of new ideas? Forgetting the magnificently revolutionary speeches of Patrick Henry? Forgetting the Boston Tea Party? Forgetting the town hall meetings at which ability to present and to defend a point of view separated the men from the boys?

Healthy, normal, stirring controversy has raged throughout the whole history of America. It has swirled about the heads of all the great Americans whose convictions, courageously expressed, have contributed to the enlightenment and progress of the entire world.

George Washington could have backed away from the Revolution that made our country free. It was violently opposed by many of his contemporaries. Abraham Lincoln could have refused to debate the slavery question with Douglas. Susan B. Anthony didn't waver when a prosecuting attorney sneered at her and derided her, or when a biased judge sentenced her for having committed the "crime" of voting. Women might still be chattels if Susan Anthony had feared controversy.

The First Amendment to the Constitution of the United States prohibits the "abridging of the freedom of speech, . . . of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances." The freedom to speak includes the freedom to disagree. Challenging, stimulating debates in every small town hall and on every street corner in this country could once again clear away the apathy that leads people to neglect their privilege of voting, to shirk the task of defending the ideas in which they believe and to fear being called names.

The medical profession has always been an ardent champion of American ideals as expressed in the Constitution, and an outstanding foe of the fuzzy thinkers who coin slogans intended to lure people into a false sense of security.

The year 1956 is a year of decision for America. We shall be electing a president and most of the other representatives of the people, from United States senators to precinct chairmen. All are important. We should insist that all of the candidates state their views, and we should carefully consider both the kinds of people that their records have shown them to be and the ideas in which they profess to believe. Those are some of our obligations as citizens of this Republic.

Even if it were discharged at the rate of one million dollars a day, it would take the next 750 years for our government to pay off the national debt.

Dr. and Mrs. E. B. Howell, of Ottumwa, have gone to Gulfport, Mississippi, to spend some time in the sun.

The year 1956 is an election year that could have a great impact upon the medical profession in the years ahead. Physicians and friends of physicians have a great responsibility. They must qualify to vote, know the issues, know the candidates' positions, make up their minds for whom to vote, know when to vote—and vote! Registration is the first step.

SYNOPSIS

The living
Scramble ceaselessly
For baubles and thin glory
Which lose their magic for tired children
At night-fall.

—Elinor Chapler

TRUTH DOLLARS NEEDED NOW!

No loyal Iowan would want our state to do less than its part among the states in financing the Crusade for Freedom, which combats communism by broadcasting truth to the 70,000,000 people in the Iron Curtain countries.

Please mail a truth dollar to Crusade for Freedom, care of your local postmaster.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

TUBERCULOSIS FIELD PROGRAMS

Because the care of tuberculosis patients has taken on a new meaning with the use of drug therapy, the State Department of Health has begun an intensive follow-up program for the outpatients of the State Sanatorium and the Sunnyslope Sanatorium. Letters have been sent to personal physicians and to public health nurses concerning patients who have left tuberculosis hospitals against advice, and every effort is being made to get them to return for further treatment.

A letter of inquiry regarding unreported cases of tuberculosis was sent to all physicians in Iowa a short time ago. The inquiry yielded ten cases of tuberculosis not previously reported to the Division of Tuberculosis.

The county-wide, the contact case-finding and the special programs sponsored by the Division of Tuberculosis have been operating during the past six months. Clayton County conducted the only county-wide program.

CLAYTON COUNTY

Number of 70 mm. films taken	9,521
Number referred for large films	116
Number of 14 x 17 films taken	109
Number who failed to report	7
Tuberculosis found	
Probably active	0
Probably inactive	4
Probably healed	26
Activity undetermined	6
Non-tuberculous findings (one or more per person)	45
Healthy chests (on basis of 14 x 17 films)	28

In 29 counties, the Division of Tuberculosis sponsored case-finding programs for persons known or suspected of having contact with tuberculosis. Contacts and suspects were tuberculin-tested and x-rayed.

CONTACT CASE-FINDING PROGRAM

Number of 14 x 17 films taken	1,710
Tuberculosis found	
Probably active	15
Probably inactive	63
Probably healed	249
Activity undetermined	56
Non-tuberculous findings (one or more per person)	303
Healthy chests	1,024

Skin testing of selected school groups is now a part of the case-finding program. Four counties promoted this work during the past six months. The public health nurse assists the physician in follow-through of all positive reactors and family associates.

Continuous follow-through on known and suspected cases of tuberculosis and suspected malignancies by county and staff nurses is carried out routinely under the direction of the family physician.

Thirty special and emergency programs were completed during the past five months. Of the 28,528 persons photographed on 70 mm. film, 204 were referred to private physicians for large films. The 14 large films taken by the Mobile Unit were negative.

During the six-month period, 1,041 bus drivers were x-rayed. Six state schools and three penal institutions were x-rayed as a part of the case-finding program.

BREAKDOWN OF NON-TUBERCULOUS FINDINGS

(County-wide 72; Contact 523; Special 664)

Thoracic cage anomaly	50
Lung anomaly	1
Bone lesion	10
Pleural abnormality	112
Postoperative chest	58
Abnormal diaphragm	35
Hilar node calcification	152
Calcif. diffuse granulomatous lesions	67
Pneumonitis	31
Possible neoplasm	20
Abscess	2
Fibrosis, cause unknown	53
Increased bronchovascular markings	53
Bronchiectasis suspect	100
Coin lesion	20
Pneumothorax	1
Atelectasis	22
Emphysema	60
Mediastinal mass	28
Abnormal aorta	92
Abnormal heart size/contour	283
Soft tissue abnormality	7
Susp. histoplasmosis	10
	1,259

NEW T-B CASES REPORTED FOR FIRST TIME

July 1-December 31, 1955

Stage	
Minimal	46
Moderately advanced	74
Far advanced	87
Not classified, except as pulmonary	16
Not stated	1
Extra pulmonary	32
	256
Source of report	
Private physicians	47
Sanatoria	
Oakdale	70
Broadlawns	15
Sunnyslope	9
Sunnycrest	7
Pine Knoll	9

River Heights	1
Veterans Administration	42
Interstate	39
SUI Laboratories: positive sputum	1
University Hospitals	13
Other	3
	256
Hospitalized	
Oakdale	70
Broadlawns	13
Sunnyslope	9
Sunnycrest	7
Pine Knoll	9
River Heights	2
Veterans Administration	41
Mental Hospitals	1
University Hospitals	13
Other	12
Not Hospitalized or Not Stated	79
	256
Number of new cases in preceding period, January 1 to June 30, 1955	250

PSITTACOSIS INFECTION FROM TURKEYS

During 1955, the Iowa State Department of Health received reports of psittacosis in three people who had been engaged in handling turkeys, and during the same time, the veterinary public health section of its Division of Preventable Diseases has found strong serological evidence of the presence of ornithosis (the non-human variant of psittacosis) in flocks of turkeys widely scattered throughout the state. Though the symptoms have appeared in only a very few flocks, and though the effects have been serious neither from an economic nor from a human health standpoint, the situation is one that will bear watching.

In at least one instance, other disease conditions to which the positive flock was subject prevented a satisfactory evaluation of the effect of the ornithosis. In another, the history of the birds tested indicated no significant effect from ornithosis, and evidence of the disease was found only as a result of the chance submission of a serum sample to an out-of-state laboratory for testing. A few samples of avian serum had been forwarded to Dr. John P. Delaplane, at the Texas A & M College, for ornithosis testing, and not all of them gave positive results. Both positive and negative results have been secured with individual samples from infected flocks.

In addition to forwarding a few serum samples to Dr. Delaplane, the personnel of the Iowa Veterinary Medical Diagnostic Laboratory have made several unsuccessful attempts to recover ornithosis virus by means of mouse inoculations.

Recognition of the presence of ornithosis in poultry flocks is not possible by clinical means or by autopsy alone. In instances where human infections have been traced to contact with infected turkeys, the birds have shown no symptoms that warranted any particular suspicion. Mortality in affected flocks is usually so low that it attracts little attention from the flock owner. In very young poults, however, Dr. Delaplane has said that mortality is reported to be higher than in those that are more than a few weeks old.

Gross lesions are likewise of little value for diagnostic purposes.[1] Anemia, emaciation, enlarged spleens, necrotic foci of the liver, fibrinous inflammation of the peritoneum and pericardium, a plastic exudate from the liver and heart, nephritis and catarrhal enteritis have been observed in affected non-psittacine birds, but the causative virus has also been found in birds with no gross lesions. The few serologically positive turkeys observed in our laboratory showed a small amount of soft, fibrinous exudate in the abdominal cavity and in the pericardial sac very similar to that seen in many cases of sinusitis or chronic respiratory disease. This exudate may have been due to the presence of sinusitis, since the absence of the causative agent could not satisfactorily be demonstrated.

It is thought quite likely that several other Iowa flocks of turkeys and chickens may have been infected with ornithosis. Accurate diagnosis of the disease is strictly a laboratory procedure and requires considerable time. Serological diagnostic methods are not available at the Iowa Veterinary Diagnostic Laboratory, but the check for the presence of the disease will be continued by means of mouse inoculation tests and any serological facilities that become available at other laboratories.

1. Biester, H. E., and Schwarte, L. H.: Diseases of Poultry, Third Edition, 1952.

MILWAUKEE MEETING OF ACS

Handling of mass casualties will be one of the important subjects to be discussed by a panel of experts at the Sectional Meeting of the American College of Surgeons during the three-day meeting at the Hotel Schroeder in Milwaukee, February 27-29, 1956. All members of the medical profession are invited to attend. Dr. Forrester W. Raine, of Milwaukee, is chairman of the Advisory Committee on Arrangements.

Among the topics to be considered are fractures in children, hypothermia in cardiac and general surgery, carcinoma of the prostate, tumors of the thyroid, cancer of the colon, intestinal obstruction, problems in operability, endometriosis, repair of nasal defects and biliary-tract surgery. Medical motion pictures and cine clinic films will also be included in the program.

MAYO CLINIC OFFERS 3-DAY COURSE

A three-day program entitled "Clinical Reviews" will be presented April 9-11, 1956, at Rochester, Minnesota, by the staff members of the Mayo Clinic and the Mayo Foundation for Medical Education and Research. The meeting will be devoted to lectures and discussions on problems of current interest in medicine and surgery.

Because accommodations are limited, it is essential that physicians who wish to attend should communicate with Mr. R. C. Roesler, at the Clinic. There are to be no fees of any kind.

COUNTY SOCIETIES

Black Hawk

The regular meeting of the Black Hawk County Medical Society will be held at 6:30 p.m. February 21, at the Elks Club in Waterloo. The name of the guest speaker has not yet been announced.

At the January 17 meeting, Dr. P. F. H. Pugh, a Sioux City psychiatrist, spoke on the "Twenty-Minute Interview."

Boone

Officers of the Boone County Medical Society for 1956, elected at a meeting held at the Holst Hotel on December 28, are Dr. R. A. Manderscheid, president; Dr. G. H. Sutton, secretary-treasurer; and Dr. John Wahl, vice-president. Dr. John Herman was named trustee, and Dr. R. L. Wicks was chosen as delegate.

Carroll

New officers of the Carroll County Medical Society elected on December 20 are Dr. R. J. Ferlic, president; Dr. J. R. Martin, vice-president; and Dr. J. M. Tierney, secretary-treasurer.

Cerro Gordo

The new officers of the Cerro Gordo County Medical Society who were installed on January 10 are Dr. F. W. Kapke, president; Dr. A. J. R. Stueland, vice-president; Dr. R. C. Brown, treasurer; Dr. J. E. Christopherson, secretary; Drs. H. G. Marinos and T. E. Davidson, delegates; and Drs. S. Brownstone and John MacGregor, alternates.

Clinton

Newly elected officers of the Clinton County Medical Society are Dr. Robert Nelson, president; Dr. John Stewart, vice-president; and Dr. John Edwards, secretary.

At the December 20 meeting of the Society, Dr. Donalee Tabern, chief chemist and physicist for Abbott Laboratories, spoke on radioactive isotopes and their application to medical practice.

Des Moines

A movie "Fluid and Electrolyte Balance" was shown to the members of the Des Moines County Medical Society at their meeting on January 10.

Dickinson

At a meeting held on January 8 at Spirit Lake, Dr. R. J. Coble, of Lake Park, was chosen president of the Dickinson County Medical Society. Dr. P. A. Scott, of Spirit Lake, was made vice-president, and Dr. Ruth Walcott, of Spirit Lake, was made secretary-treasurer for 1956.

Dubuque

Dr. Morris Fishbein, of Chicago, spoke on "Medical Progress in 1956" at a joint meeting of the Dubuque and Grant County (Wisconsin) medical societies held at the Dubuque Golf and Country Club on January 10.

New officers of the Society, elected December 13, are Dr. C. J. Schueller, president; Dr. Frank Piekenbrock, first vice-president; Dr. F. J. Bries, second vice-president; Dr. E. R. Bartels, secretary; Dr. R. A. Pfaff, treasurer; and Dr. T. J. Greteman, censor. Delegates are to be Dr. Donovan Ward, Dr. R. J. McNamara, and Dr. P. J. Laube. Alternates are Dr. K. K. Hazlet, Dr. C. W. Stevens and Dr. Wm. Province, Jr.

At the meeting to be held at the Dubuque Golf & Country Club on February 14, Dr. L. B. January, of the Department of Internal Medicine at SUI, will speak on "The Surgical Aspects of Heart Disease."

Harrison

Dr. Martin Deakins, of Logan, is the new president of the Harrison County Medical Society, Dr. F. X. Tamisiea, of Missouri Valley, is secretary-treasurer, Dr. A. C. Bergstrom, of Missouri Valley, is delegate and Dr. Bernard Kinney, of Woodbine, is alternate.

Johnson

At the January 4 meeting of the Johnson County Medical Society, Dr. Richard D. Eckhardt, of the Department of Medicine at the Des Moines V-A Hospital, spoke on "Treatment of Hepatitis and Cirrhosis." At a special meeting held on January 19, the topic for discussion was "The Future of Blue Shield."

Linn

On January 12, the Linn County Medical Society heard Dr. Ralph E. Dolkart, assistant professor of medicine at Northwestern University, speak on "Newer Concepts in the Use of Adrenal Steroids."

Muscatine

Officers of the Muscatine County Medical Soci-

ety for 1956 are Dr. E. H. Carlson, president; Dr. Robert Klein, vice-president; and Dr. Samuel Bluhm, secretary-treasurer.

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Dr. Stewart Ramsdell, of Clarinda, is the new president of the Page County Medical Society. Dr. Philip Spencer, of Essex, is vice-president, and Dr. Kenneth Jensen, of Clarinda, is secretary-treasurer. Dr. Ramsdell will be the Society's delegate, and Dr. John Eisenach, of Shenandoah, will be his alternate.

Polk

At the February 15 meeting of the Polk County Medical Society, Dr. Stewart C. Cullen, head of the Department of Anesthesiology at the SUI College of Medicine, will speak on "The Role of the Anesthesiologist."

Pottawattamie

The 1956 officers of the Pottawattamie County Medical Society are Dr. A. L. Nielson, president; Dr. Lee R. Martin, president-elect; Dr. R. M. Collins, vice-president; and Dr. I. J. Hanssmann, secretary-treasurer. Dr. J. D. Hennessy has been elected to the executive council for a five-year term, Dr. Jack Treynor has been made a member of the Board of Censors for a three-year term, Dr. J. V. Edwards was named delegate and Dr. U. J. Collignon was chosen as alternate.

Sac

Dr. John Hubiak was elected president of the Sac County Medical Society on December 8. Dr. Don Michaelson was made secretary-treasurer; Dr. W. J. Evans, delegate; Dr. J. W. Gauger, alternate; and Dr. C. E. Lierman, councilor.

Scott

The centennial year officers of the Scott County Medical Society are Dr. H. M. Hurevitz, president; Dr. L. V. Schroeder, president elect; Dr. T. W. McMeans, vice-president; Dr. F. Dale Wilson, treasurer; and Dr. A. B. Hendricks, secretary. Dr. Hendricks and Dr. J. F. Bishop are delegates.

The program for the centennial meeting of the Scott County Medical Society, March 21, is published elsewhere in this issue of the JOURNAL.

Wapello

At a 6:30 p.m. meeting in the Ottumwa Hospital on February 7, Dr. W. C. Keettel, of the SUI Department of Obstetrics and Gynecology, will address the Wapello County Medical Society.

Webster

Dr. Paul Stitt was named president of the Webster County Medical Society at the group's annual meeting December 12, at the Hotel Warden in Fort Dodge. Dr. J. F. Vincent was elected vice-president, and Dr. Francis Giles, secretary-treasurer.

Woodbury

Dr. John Randall, head of the Department of Obstetrics and Gynecology at the SUI College of Medicine, addressed the Woodbury County Medical Society on January 5, on "Newer Indications for Cesarean Section." About 75 doctors attended.

There is to be no February meeting of the Woodbury County Society, for the Sioux Valley Medical Society's meeting is being held in Sioux City on February 21-23. The complete program is printed elsewhere in this issue of the JOURNAL.

DEATHS

Dr. Calvin C. F. Bosch, 53, who had practiced at Sibley since 1944, died at his home there on January 3, of coronary thrombosis.

Dr. Altheus Wood Patterson, 70, who practiced for many years at Fonda and since World War II for the V-A in Des Moines and Seattle, died on December 17 at Coralville, where he had been living in retirement for the past year and a half.

Dr. Paul A. White, 71, Davenport physician and surgeon, died at his home there on Christmas Day, of lymphosarcoma. He was a Life Member of the Iowa State Medical Society.

STATISTICS ON ALCOHOLISM

In penthouse or slum, alcoholism afflicts both genius and dullard, male and female (6 men to 1 woman). Most of the male alcoholics are in the prime of life, 85 per cent being between the ages of 35 and 55. The alcoholic's life is curtailed by 2 to 12 years. The incidence of divorce is much above normal; 16 per cent of the married male alcoholics are divorced and 25 per cent separated. In New York City magistrates' home term court, 70 per cent of the cases involve excessive drinking.

Alcoholism's annual toll of wage loss is estimated at half a billion dollars. The National Safety Council considers $120,000,000 alcoholism's annual contribution to preventable accidents. Attributable relief costs are $22,000,000. Hospitalization for injuries and incarceration cost $56,000,000. A good guess of the total enormous private and public cost to victims and society is well over a billion dollars a year.

—Julius Isaacs, J.D., in PUBLIC HEALTH REPORTS, 70:1161-1167, (Dec.) 1955

MEDICAL HISTORY



It Was Salubrious

The First Quarter Century of the Scott County Medical Society

The doors opened as the first heavy footsteps shook the porch. Marguerite LeClaire, with the restraint expected of her as the daughter of a Sac Chief, hid her apprehension beneath an immobile round face and bade the night visitor a quiet welcome, although at the first sound of hoof beats she had felt compelled to rush to the road and drag him from his horse.

Marguerite's husband Antoine was on his back and helpless, and all the long day she had been weighted with responsibility. It seemed to her that if there were no change for the better before morning, not only her husband but this foothold of theirs on the edge of the most promising part of the Western World would surely be lost. From the Blackhawk Purchase, Chief Keokuk had given Marguerite the choice parcel of land on which the house stood, and Antoine, outstanding for his vision and for his faith in the eventual settlement of the whole of it, had managed it capably, growing in stature as he grew in girth.

On the trails, on the River, in the stores and in the saloons, there was general agreement that Davenport was bound to boom. And behind all of the talk was Antoine LeClaire. Beyond him there was nothing but hundreds of miles of woods, prairie, wolves and Indians.

Egbert S. Barrows, regular physician, whose arrival that November night in 1836 brought great relief to Mrs. LeClaire, was new to the territory, but he was already aware that this consultation for which he had been summoned could be the making of him. As he jogged up from Rockingham, he had rehearsed his role and had primed himself to be both astute and resolute.

As he entered the house, a draught of cool air made the candelabra flicker, then burn brighter, deepening his shadow upon the wall of the room. His confidence strengthened at the same time. Tall, heavily built and ruddy complexioned, Dr. Barrows was a typical pioneer citizen of his day, from his dust-peppered black hat to his manure-speckled black boots. In his hand he carried his saddlebags filled with all the arts and sciences of the early nineteenth century physician.

Two things he had that distinguished him from the average—a forthright manner and, like Antoine, vision.

In the bedroom to which Mrs. LeClaire led him, all available candles were blazing, as if their light could show a way for Antoine to get to his feet. The patient lay so deep in the feather mattress that from across the room only the proud summit of his abdomen was visible.

A slender, mustachioed gentleman in a neatly pressed tailcoat was striding toward the far wall as they entered, and Mrs. LeClaire showed deference in her tone of voice as she began, "Dr. Bardwell, allow me to present. . . ."

But Bardwell, turning on his heel to face them and continuing his pacing as if he were full of ants, showed no inclination toward pleasantries but plunged immediately into a discussion of the case. "Now, Barrows," he announced, "we have here a plain case of abdominal dropsy which I propose to relieve of a gallon or two by tapping."

Antoine, more than half submerged in the bed, showed nothing of his importance. Instead, he exhibited that most pathetic of sights, the flushed face of the sick fat man. Barrows observed that only his sharp, dark eyes were in even the slightest motion. His arms, legs, head—all were still as if each of his members had been warned by pain. Barrows had seen this posture several times recently among the sick in the dank, chill lowlands of Rockingham.

"Dr. Bardwell," he said quietly, "it is my belief that Mr. Leclaire has inflammatory rheumatism." And then, his composure a little riled by Bardwell's apparent smirk, he added, "Any tapping done here had better be done in the arm!"

Bardwell laughed then, but his laugh, surprisingly, suggested more of relief than of derision. "Mr. LeClaire," he said as he turned toward the bed, "here are two doctors. One you may have; the other may be left."

LeClaire grunted, half from despair, half in disgust, "Dr. Barrows may bleed me."

Ten minutes later, as the richest blood in the Blackhawk Purchase was splashing merrily into the bowl so kindly held by Dr. Bardwell, the Medical Society of Scott County had its inception. True, it wasn't until nearly 20 years later that physicians came together to frame its constitution, but if it had not been for Barrows' confidence and composure in 1836, those particular men who assembled in 1856 might never have met. If Antoine LeClaire's abdomen had been tapped, the medical literature might have been enriched by its most famous case of "wind ab-

scess," but Davenport would have withered on the vine, and E. S. Barrows, his horse and his saddle bags would have disappeared into the forest primeval.

The unselfishness of Bardwell, a resident of Stephenson (Rock Island), in delaying his recreation to assist in the bleeding adds an implication. It portended the cordial relations that exist today between Scott and Rock Island County physicians.

LeClaire got well. He rode up to Barrows one day and gave him a handful of gold and silver, repeated that procedure several times, then gave him a deed to an outlot which Barrows subsequently sold for a profit. So, having ability, some money and a friend, Barrows stayed on.

But it took a great deal of foresight and enthusiasm to make people give up the comforts and security of such settled communities as Cincinnati and take a chance in the West. Some men and women came, only to return quite promptly. Those physicians and laymen who came and stayed were, however, considerably in the majority, and within 20 years from the time when the first lancet was drawn there, Scott County was ready for a medical society.

In the meantime, fur trading had given way to the lumber business, and keelboats to steam boats. In 1843, a hundred steamboats were docking each week. In 1839 the first purebred pigs (Berkshires) were brought in, and by 1856 packing houses were buzzing like the sawmills and 20,000 hogs were going through them in a single year. In 1836, a man had come in from the Wabash River country with 500 bushels of corn and had bought land in exchange for that unusual commodity. He represented the best thing of all—the settler. He was the sort of individual whom Col. Davenport and Antoine LeClaire were happy to welcome. If the land around could be settled, the city's future would be secure.

From 1850 to 1856, we are told, "the development excited the wonder and taxed the credulity of all cognizant of the fact." The coming of the first railroad and the building of the first bridge were only two of the many wonders of the day.

This phenomenal settling of the Middle West, we have always been led to believe, should be credited to the vigor and vision of the settlers. But at the time, there were many people who maintained that it was all due to Sappington's Pills. Not only were they convinced that the homestead's foundation rested upon them; they believed that the steamboats used them for fuel. On the other hand, there was a man behind the pills. Dr. Sappington, somewhere "up the Missouri" rolled quinine in pills, four dozen to the box, and directed, "Take 2 to 20 according to the severity of the case."

Besides malaria, there were other kinds of sickness peculiar to the river valley—the bilious remitting fever of summer and autumn, bilious pneumonia in winter, and fevers of typhoid character accompanied by great nervous depression. So there was a need for doctors, and doctors came and went. There was a considerable turnover of medical men, but there was never any lack of them, and 25 or 28 of them were resident in the County when the idea of forming a society came up.

Assembled at the office of Dr. Witherwax on October 18, 1856, the founding fathers agreed upon the following statement of their objectives: "To promote the diffusion of true Medical Science among [the Society's] members and elevate the character of the profession in the community."

Their statement of purposes did not end there, but went into a certain amount of detail regarding the problems with which the organization should deal: "Among a newly settled people, baneful irregularities are apt to be imputed to the profession generally unless there is an organization zealous in its guardianship of the portals of Medicine.

"Without there is a charmed line over which mere empirics cannot pass, and which is constantly kept visible to the public eye, the votaries of Science have to suffer depreciation by being classed with irresponsible practitioners noted only for the excess of their ignorance and the audacity of their pretensions."

During the Society's first ten years, its members appear to have been virtually obsessed by the stern duty that they had thus imposed upon themselves. The yellowed minutes of their business meetings are filled with the charges brought by one member upon another and with committee investigations of accused physicians. The unforgivable sin, it appears, was that of associating with an "irregular practitioner."

Criminal abortion, of course, was abhorred then as it is now, and the Society made a short-lived attempt to assess some charges of that sort. But after several emergency meetings on one such case, the members recommended that those matters could be better handled by a grand jury than by one of the Society's committees.

One member was expelled because the Society considered his prenatal exams excessive and unethical. Apparently he was trying external version, which the Society termed "impossible," but to one who reads the first book of minutes as a continuous story, the whole affair seems to have concerned much more than that one maneuver. Rather, it seems to have involved personalities, feuds, irregularities and revolt, all in one package.

Actually, one gathers, the newly settled people were minding their own businesses, and the doctors were "imputing baneful irregularities" unto one another. And incidentally, because the doctors, then no less than now, were entirely dependent upon the citizenry for their livelihood and prestige, it is well that we give them more than a friendly nod in passing.

When the Scott County Medical Society was founded, there were almost 13,000 people in Dav-

enport. Of that number 7,000 had been born in America, 3,000 in the German Empire and 1,000 in a wide variety of other countries. All of those were neatly balanced by nearly 2,000 native-born Irish. Most of those born in this country were first generation Americans of German ancestry, and a large proportion of them had jumped off to the Wild West from Cincinnati.

A random sampling of the census by trades turns up the following:

Bankers	16	Painters	78
Carpenters	539	Professors of Moral and Mental Philosophy	1
Coopers	96	Saloon Keepers	65
Laborers	1,301	Cigar Makers	18
Lamplighters	1	Shoemakers	106
Loafers	5	Teamsters	145
Medical Students	1	Washerwomen	42

There was one mayor, by the name of Sargent, who in his 1857 inaugural address said, "Among the many important matters demanding early attention is that of securing a suitable lot and building thereon a hospital at a cost of at least $15,000."

That the hospital of which he spoke didn't materialize until the advent of the Sisters of Mercy in 1869 was, perhaps, due to the healthiness of the locale. Indeed, if one were to judge from the comments found in Wilkie's history of Davenport's first 20 years, one might wonder that more than two dozen physicians could support themselves there: "In Winter shielded from the blast of the North, and in Summer accessible to the West with no marshes or superabundance of decaying vegetable matter to inspire dread, [Davenport has] one of the most salubrious atmospheres of which our country can boast."

Having perused that passage, we should never have imagined that the town had an undertaker. But it did, a gentleman named I. Hall, and Wilkie—a one-man chamber of commerce—assures us that he was "eminently fitted for his position."

Just as it takes all kinds of people to make a city, so it takes all kinds of doctors to minister to them. E. S. Barrows was, himself, the first president of the Society. Worthy as he had proved himself in other ways, it undoubtedly was his feat of collecting a fee of $100 for prescribing and administering a dose of Epsom salts that won him the honor. (It seems that the patient had gone to an irregular, and then had returned to the fold.)

Drs. Adler and Fountain migrated to Davenport following several years' work with the railroad in Panama. Thereupon, Fountain became a celebrity the hard way. A staunch advocate of chlorate of potassium for all ills, he attempted to prove its margin of safety by taking a large dose. He promptly died. Incidentally, his eulogy which is to be found in the Society's minutes, recounts that he had married the daughter of a wealthy merchant, an accomplishment which, the eulogist declares, is "the *sine qua non* for the young man starting in practice." That's just one more of the things that aren't taught in medical school.

A. S. Maxwell went West, invested a lot of money, lost it, and only then "went actively to work."

J. W. Baker settled in Davenport on his way back from California, where he had had a bout with gold fever.

C. C. Parry practiced for a while, then drifted into "the more congenial work of botanical collection," which brought him nationwide fame.

But that the calibre of the Davenport doctors was equal to all of the demands of their profession is indicated by their connection with the medical school at Iowa City. W. F. Peck, who joined the Society in 1864, helped build the SUI medical faculty and was its first dean. Edward Hazen, the first specialist in Davenport (ENT, 1868), was on the faculty.

W. W. Grant, who came in 1871, was to gain prominence for performing the first appendectomy on diagnosis of appendicitis (1886).

Yes, it took all kinds. One might conceivably find a warm spot in his heart for the memory of R. W. Hill, whose obituary, after calling him "one of the best of surgeons," says he was "strongly loyal to [the Scott County Medical Society] yet rarely attended its meetings."

Of those who went to the Civil War, some got hospital jobs, and some went with the troops. Those who stayed at home worked in the military hospitals at Camp McClellan and in the prison camp at the Rock Island Arsenal.

In 1873 came a big cholera epidemic during which 100 died. The Society had been pressing for a city registration of deaths, and the epidemic, coming when it did, catalyzed the formation of a Davenport City Board of Health. Thereupon, delegates to the state convention were instructed to press for the establishment of a state board of health and for a bureau of birth and death registration.

The scientific part of each of the Society's program was furnished by local talent. Many times the doctor originally assigned to give the speech of the evening had to be excused, but there was no dearth of substitutes. The subjects of their papers covered a lot of territory, and three or more were occasionally heard at a single meeting. Now and then, the program was a symposium to which everyone contributed. The following constitute samples of the range of the doctors' interests.

Ossification of the Semilunar Valve (An Autopsy)
Lumbricus (ascaris) Strangulated by the Eye of Draper's Hook-and-Eye
Belladonna to Prevent Suppurative Mastitis
Massive Doses of Olive Oil for Gall Stones
Treatment of People Struck by Lightning
Retained Placenta Discharged After Six Months
Open Reduction of Fractured Zygoma

On an evening in 1878, the members adjourned early, part of them to Dr. Peck's office and part

to his home, where they spent a pleasant hour testing the resources of that wonderful new invention, the telephone.

In 1881 the Scott County Medical Society adopted a resolution of considerable length which is worth repeating, at least in part, because it is again peculiarly timely. One needs to do little more than to substitute *Osteopathic* for *Homeopathic* and the resolution becomes as up to date as T-V.

"In view of recent accusations from more or less prominent sources and made public through the press . . . charging the regular profession with bigotry and intolerance . . . toward homeopathic and other special schools, this Society should at this time define its position.

"We hold that the practice of the healing art should be based on no dogma . . . but on knowledge.

"National Medicine . . . is a growing science to whom *[sic]* all sciences contribute and whose votaries acknowledge the restrictions of no 'pathy' or 'school.'

"We see no prospect that even so much of a reform as that in New York [the Homeopathic Society of Upper New York having formally discarded the doctrine of infinitesimal doses] so long as Iowa and Michigan continue to support in their State Universities, side by side, departments for instruction in broad medical science and for maintenance of a special creed."

In 1884, the Society sent a committee before the State Legislature to urge that the state should care for the insane, whether supposedly incurable or not, that economy should not be considered before humanity, and that the cottage system should be used for such care.

Anesthesia was but ten years old when the Scott County doctors first met in the office of Dr. Witherwax. There were no germs present at their meetings over the next 25 years, or if there were, the estimable gentlemen were unaware of them, for even Pasteur was still in the process of making their acquaintance. When the first quarter century of the Scott County Society closed, Bilroth was just rolling up his sleeves in preparation for his first gastrectomy.

In consideration of what we know today, those forefathers of ours were ignorant. But in consideration of what will be known a hundred years from now, we are ignorant, and we must grant that they had a great deal of enthusiasm, initiative and professional quality that made them more effective in their work than otherwise might have been possible.

The secretary of the Scott County Medical Society, concluding the minutes of a meeting held long ago, was correct in his assessment of the ideals that they strove to typify, the ones that contribute most to the achievement of true success in Medicine:

"Uniformity of action, courteous relations and a keen desire to promote general welfare are apparent among the members, and the prospect now is that the medical corps of Scott County will stand at no distant day preeminent in the valley of the Upper Mississippi."

USPHS CANCER MAN DEFENDS CIGARETTES

Numerous epidemiological observations strongly suggest that industry-related factors have played an important causal role in the rise of lung cancers in the industrialized countries of the Western World observed during the last 50 years.

There does not seem to exist any parallelism between the lung cancer death rate and the per capita consumption of cigarettes for different countries. In fact, the rise of lung cancer death rates parallels as closely, or even more closely, the rise in production and/or consumption rates of motor fuel, coal tar, petroleum products, and several carcinogenic metals and minerals, or the construction of asphalted roads, than that of cigarettes.

In my opinion, the medical evidence supporting a major role of cigarette smoking in the causation of lung cancer . . . is inadequate. It is surprising to note the absence of positive statistical associations between lung cancer and cigarette coughs, although this latter symptom is clinically characteristic of chronic chain smokers. Despite the fact that the lips and oral mucosa are constantly bathed in the tarry liquor oozing from the tip of the cigarettes and despite the contact of these parts with the smoke coming from the cigarettes, there is no statistical association with cancer of these parts.

The claimed absence of a positive association between lung cancer and the habit of inhaling cigarette smoke also is inconsistent with the rule that the incidence rate of occupational cancers increases with the intensity of exposure to a carcinogen. The medical considerations on cigarette-smoke cancer of the lung thus reveal a number of serious and fundamental defects and contradictions.

The best that can be said about the experimental evidence on hand regarding carcinogenic properties of tobacco tar is that it indicates the presence of mildly carcinogenic agents in cigarette tar through the use of hyper-reactive animals. There is no evidence that these observations of the skin of a strain of selectively inbred mice have any equivalent in man. Thus the practical importance of these observations as to cancer of the human being is at present uncertain.

—Abstracted from a paper by W. C. Hueper, M.D., head, Environmental Cancer Section, National Cancer Institute, Public Health Service, in PUBLIC HEALTH REPORTS, 71:94-98, (Jan.) 1956.

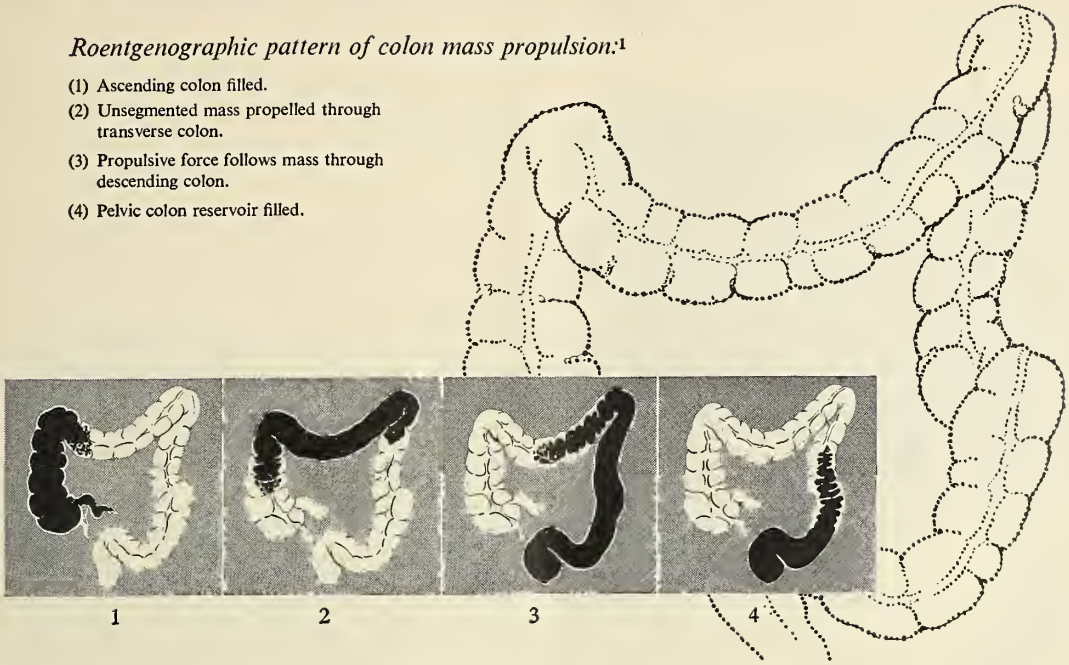
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Harrison	M. L. Deakins, Logan	F. X. Tamisiea, Missouri Valley	A. C. Bergstrom, Missouri Valley
Henry	J. G. Widmer, Wayland	P. G. Couchman, Mt. Pleasant	W. H. Megordon, Mt. Pleasant
Howard	D. O. Maland, Cresco	P. A. Nierling, Cresco	P. A. Nierling, Cresco
Humboldt	R. W. Beardsley, Livermore	J. H. Coddington, Humboldt	I. T. Schultz, Humboldt
Ida	E. H. Heilman, Ida Grove	J. B. Dressler, Ida Grove	M. W. Grubb, Galva
Iowa	D. A. Paulsen, Victor	I. J. Sinn, Williamsburg	C. F. Watts, Marengo
Jackson	F. J. Swift, Jr., Maquoketa	L. B. Williams, Maquoketa	
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Jefferson	Ludwig Gittler, Fairfield	C. L. Palcheff, Fairfield	J. W. Castell, Fairfield
Johnson	R. C. Hardin, Iowa City	J. R. Maxwell, Iowa City	L. H. Jacques, Lone Tree
Jones	C. G. Thomas, Monticello	R. W. Myers, Monticello	T. M. Redmond, Monticello
Keokuk	E. R. Gann, Sigourney	R. G. Gillett, Sigourney	R. G. Gillett, Sigourney
Kossuth	D. L. Bray, Algona	J. M. Schutter, Algona	M. G. Bourne, Algona
Lee	A. C. Richmond, Fort Madison	Sebastian Ambery, Keokuk	J. H. Ashline, Keokuk R. L. Feightner, Ft. Madison
Linn	L. J. Halpin, Cedar Rapids	K. W. Woodhouse, Cedar Rapids	H. J. Jones, Cedar Rapids
Louisa	J. H. Chittum, Wapello	K. T. DeYarman, Morning Sun	L. E. Weber, Wapello
Lucas	S. L. Throckmorton, Chariton	R. E. Anderson, Chariton	A. L. Yocom, Chariton
Lyon	H. H. Gessford, George	S. H. Cook, Rock Rapids	S. H. Cook, Rock Rapids
Madison	R. W. Carson, Winterset	J. E. Evans, Winterset	J. E. Evans, Winterset
Mahaska	K. M. Lemon, Oskaloosa	Sidney Smith, Oskaloosa	G. S. Atkinson, Oskaloosa
Marion	K. D. Banks, Knoxville	August Baier, Knoxville	H. L. Bridgeman, Knoxville
Marshall	E. C. Knight, Marshalltown	H. E. Sauer, Marshalltown	R. C. Carpenter, Marshalltown
Mills	W. A. DeYoung, Glenwood	T. E. Shonka, Malvern	M. L. Scheffel, Malvern
Mitchell	M. O. Eiel, Osage	R. J. Smith, Stacyville	T. E. Blong, Stacyville
Monona	P. G. Ingham, Mapleton	P. L. Wolpert, Onawa	C. W. Young, Onawa
Monroe	F. N. Bay, Albia	D. N. Orelup, Albia	D. N. Orelup, Albia
Montgomery	D. L. York, Villisca	E. L. Croxdale, Villisca	E. L. Croxdale, Villisca
Muscatine	E. H. Carlson, Muscatine	Samuel Bluhm, Muscatine	K. E. Wilcox, Muscatine
O'Brien	I. E. Brown, Hartley	W. S. Balkema, Sheldon	E. B. Getty, Primghar
Osceola	F. B. O'Leary, Sibley	J. H. Thomas, Sibley	F. M. Rizzo, Sibley
Page	S. T. Ramsdell, Clarinda	K. V. Jensen, Clarinda	K. J. Gee, Shenandoah
Palo Alto	J. R. Hyde, Emmetsburg	C. C. Moore, Emmetsburg	H. L. Brereton, Emmetsburg
Plymouth	H. L. Vander Stoep, LeMars	F. C. Bendixen, LeMars	H. L. Vander Stoep, LeMars
Pocahontas	James Gannon, Laurens	C. L. Jones, Gilmore City	C. L. Jones, Gilmore City
Polk	W. D. Abbott, Des Moines	T. A. Bond, Des Moines	M. T. Bates, Des Moines
Pottawattamie	A. L. Nielson, Council Bluffs	I. J. Hanssmann, Council Bluffs	C. V. Edwards, Council Bluffs
Poweshiek	T. V. Niemann, Brooklyn	L. C. Hickerson, Brooklyn	T. V. Niemann, Brooklyn
Ringgold		J. W. Hill, Mt. Ayr	E. J. Watson, Diagonal
Sac	John Hubiak, Odebolt	Don Michaelson, Sac City	C. E. Lierman, Lake View
Scott	H. M. Hurevitz, Davenport	A. B. Hendricks, Davenport	T. W. McMeans, Davenport
Shelby	J. H. Spearing, Harlan	R. E. Donlin, Harlan	J. H. Spearing, Harlan
Sioux	E. N. Eneboe, Hawarden	C. B. Murphy, Alton	M. O. Larson, Hawarden
Story	Gail A. McClure, Ames	K. C. Piercy, Ames	J. D. Conner, Nevada
Tama	H. S. Bezman, Traer	A. J. Havlik, Tama	A. J. Havlik, Tama
Taylor	R. W. Boulden, Lenox	G. W. Rimel, Bedford	R. W. Boulden, Lenox
Union	W. A. Fisher, Creston	H. J. Peggs, Creston	H. J. Peggs, Creston
Van Buren	Kiyoshi Furumoto, Keosauqua	J. T. Worrell, Keosauqua	Kiyoshi Furumoto, Keosauqua
Wapello	J. B. Roberts, Ottumwa	E. B. Hoeven, Ottumwa	P. D. McIntosh, Ottumwa
Warren	C. A. Trueblood, Indianola	R. C. McGeehon, Indianola	C. A. Trueblood, Indianola
Washington	M. L. McCreedy, Washington	W. S. Kyle, Washington	G. E. Montgomery, Washington
Wayne	L. B. Calbreath, Humeston	C. F. Brubaker, Corydon	D. R. Ingraham, Sewal
Webster	Paul Stitt, Fort Dodge	F. E. Giles, Fort Dodge	C. J. Baker, Ft. Dodge
Winneshiek	Garfield Miller, Calmar	D. W. Wright, Decorah	E. F. Hagen, Decorah
Woodbury	M. A. Blackstone, Sioux City	V. R. Heimann, Sioux City	D. B. Blume, Sioux City
Worth	R. L. Olson, Northwood	C. T. Bergen, Northwood	R. L. Olson, Northwood
Wright	B. L. Basinger, Goldfield	R. F. McCool, Clarion	S. P. Leinbach, Belmond

SMOOTHAGE ACTION IN CONSTIPATION

Roentgenographic pattern of colon mass propulsion:[1]

(1) Ascending colon filled.
(2) Unsegmented mass propelled through transverse colon.
(3) Propulsive force follows mass through descending colon.
(4) Pelvic colon reservoir filled.



Reestablishing Bowel Reflexes with Metamucil®

Nervous fatigue, tension, injudicious diet, failure to establish regularity, too little exercise, excessive use of cathartics—all factors which contribute to constipation.[2]

Sufficient bulk and sufficient fluid form the basic rationale of treatment of constipation with Metamucil.

Metamucil (the mucilloid of Plantago ovata) produces a bland, smooth bulk when mixed with the intestinal contents. This bulk, through its mass alone, stimulates the peristaltic reflex and thus initiates the desire to evacuate, even in patients in whom postoperative hesitancy exists.

Such gentle stimulation is of distinct advantage in reeducating and reestablishing those reflexes which control bowel evacuation. Many factors may pervert the normal reflexes, causing finally chronic constipation. Among them are: nervous fatigue and tension, improper intake of fluid, improper dietary habits, failure to respond to the call to stool, lack of physical exercise and abuse of the intestinal tract through excessive use of laxatives.[2]

Correction of constipation logically, therefore, lies in the suitable adjustment of these factors. The characteristics of Metamucil permit the correction of most of these factors: it provides bulk; it demands adequate intake of fluids (one glass with Metamucil powder, one glass after each dose); it increases the physiologic demand to evacuate; and it does not establish a laxative "habit." Metamucil, in addition, is inert, and also nonirritating and nonallergenic.

The average adult dose is one rounded teaspoonful of Metamucil powder in a glass of cool water, milk or fruit juice, followed by an additional glass of fluid if indicated.

Metamucil is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is supplied in containers of 4, 8 and 16 ounces. G. D. Searle & Co., Research in the Service of Medicine.

1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice: A Text in Applied Physiology, ed. 5, Baltimore, The Williams & Wilkins Company, 1950, pp. 579-583.
2. Bargen, J. A.: A Method of Improving Function of the Bowel, Gastroenterology *13*:275 (Oct.) 1949.

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The Month in Washington

Washington, D. C.—Bills that have been hanging fire in Senate and House Committees for over a year finally are getting attention as the Administration pushes its program for broader and more uniform medical care for the families of servicemen.

A new version of a bill was dropped in the hopper on the opening day of this session by Chairman Carl Vinson of the House Armed Services Committee. It was designed in part to supply answers to a number of questions growing out of earlier versions sponsored by the Defense Department. Actually it raised more questions, which only hearings and testimony from expert witnesses and debate on the floor of Congress can answer.

The bill (H. R. 7994) authorizes, as a matter of right, broad medical care for dependents of the armed forces as well as of Coast Guard, Public Health Service and Coast and Geodetic Survey personnel serving on active duty. (The bill would authorize health insurance only for dependents of latter three services.) Separate bills have been introduced in the past providing medical care for dependents of the Coast Guard, PHS and Geodetic Survey, but this marks the first time they are brought into the same bill with military personnel.

In provision of services, the bill has no surprises over its predecessors. It calls for diagnosis, treatment of acute medical and surgical conditions, treatment of contagious diseases, and maternity and infant care.

On another point of major interest to physicians, the bill drops out all mention of the home-town medical care plan which was a part of Mr. Vinson's earlier bill. That bill contemplated use of civilian hospitals and doctors for those dependents who were not near military medical facilities and who had not taken out health insurance, with the government paying part of the cost.

Another area of almost certain debate in the latest bill is the insurance features. There are these main points:

1. A serviceman may elect to rely entirely on the chance of finding space available in a military hospital or clinic for his family, or he may choose protection through an insurance plan.

2. The family deciding on insurance has its choice of going to a military hospital or using civilian resources. The uninsured family could be charged by the military for out-patient care and would have to pay subsistence costs while in the hospital.

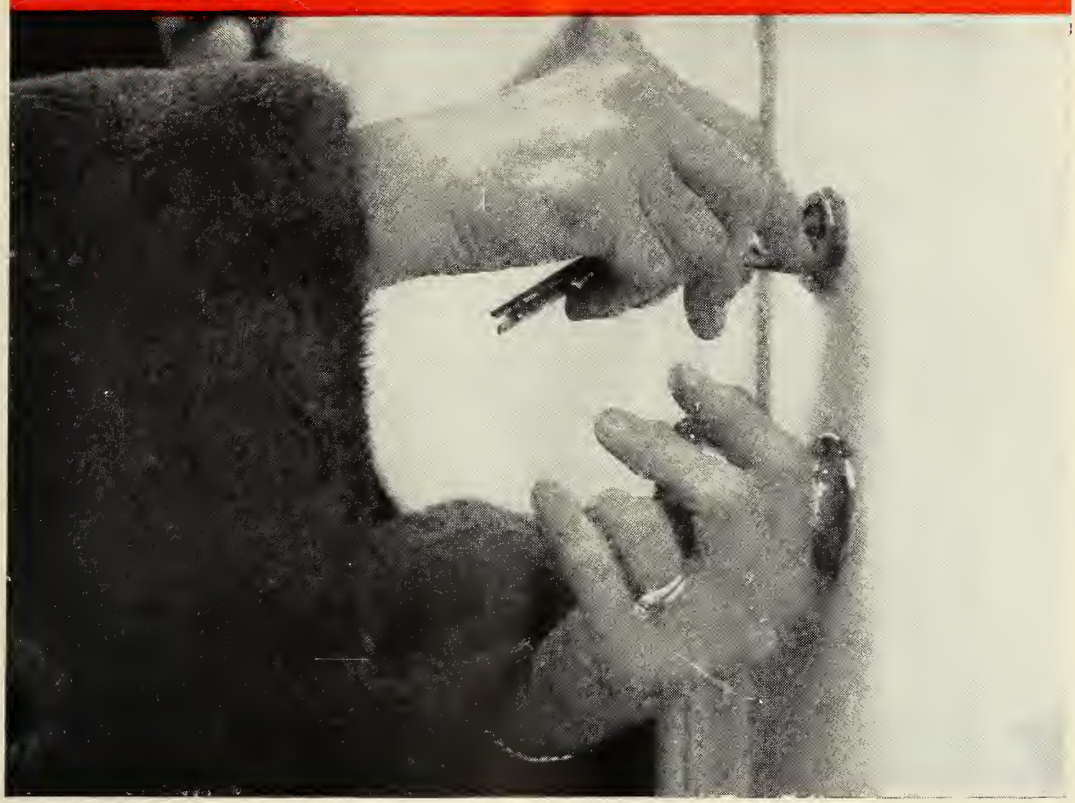
3. A serviceman taking insurance would pay 30 per cent of monthly premiums for a basic plan covering his wife and children, and the entire premiums for coverage of dependent parents and par-

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MAJOR ADVANTAGES: Greater anti-rheumatic activity than cortisone; smaller doses produce clinical improvement faster and more uniformly.[1]



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OTHER INDICATIONS: Still's Disease, rheumatoid spondylitis, psoriatic arthritis, traumatic arthritis, osteoarthritis, and bursitis.

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REFERENCES: 1. Boland, E. W. and Headley, N. E., *J.A.M.A.* **148**:981, March 22, 1952. 2. Ward, L. E., Polley, H. F., Slocumb, C. H. and Hench, P. S., *J.A.M.A.* **152**:119, May 9, 1953. 3. Snow, W. B. and Coss, J. A., *N.Y. State J. Med.* **52**:319, Feb. 1, 1952.

A message to the members of the

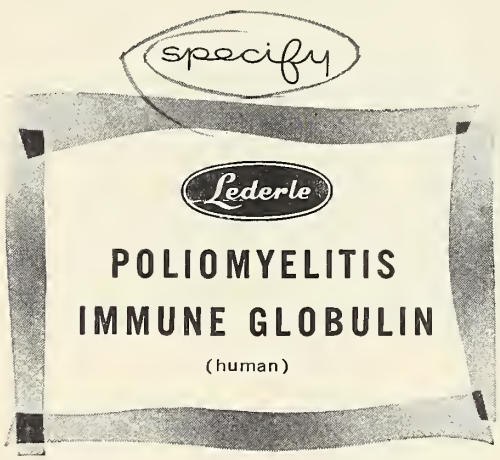
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ents-in-law. Parents and parents-in-law who found space in a military hospital, however, would be admitted on the same basis as wives and children.

4. Catastrophic-type coverage, at additional premium.

5. To take care of long term illnesses, the bill provides for transfer of dependents to military facilities once they have used up benefits in an insurance plan. Or if such transfer isn't feasible, the government could pay the additional costs for private care.

The bill was introduced before the Defense Department had completed a survey of Blue Shield, Blue Cross and commercial plans to determine to what extent they could provide care under the bill. Conceivably the survey could further change the shape of an already much-revised piece of legislation.

President Eisenhower in his State of the Union message summed up the case for dependent medical care this way: "Much has been done to attract and hold capable military personnel, but more needs to be done." He also broadly outlined administration plans in the health field, with emphasis on more money for research and federal aid to medical schools and to private research facilities for construction. With bipartisan bills along this line already before Congress, these proposals may move right along before adjournment in midsummer.

However, Congress might decide that for this year medical schools should settle for the $90 million of Ford Foundation money being made available to private schools to help strengthen teaching staffs.

By the same token, there was some question just how much Congress would vote for Hill-Burton hospital programs this session in the light of the $200 million Ford grants to some 3,500 non-profit hospitals.

A recent Public Health Service report indicates that states are now showing less preference for "public" Salk vaccine programs than they did a few months ago. The sixth allotment marked the high-point in preference for the "public" system. Then came a slight but steady decline.

INSURANCE STUDY IS INTENSIFIED

The Iowa House of Delegates, last April, asked its Special Committee on Group Insurance to study the question of group professional liability insurance. Recently, the Board of Trustees has asked that Committee to intensify its study and to broaden its approach so as to review the entire present status of professional liability as it exists in Iowa, and to develop recommendations for consideration by the House of Delegates at its next meeting.

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Cook County Graduate School of Medicine

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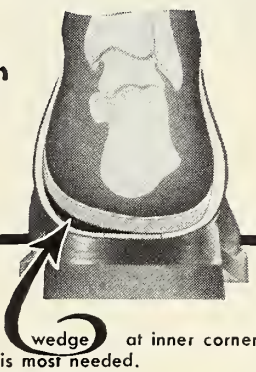
Starting Dates—Winter-Spring, 1956

SURGERY—Surgical Technic, Two Weeks, March 19, April 2
Surgical Anatomy & Clinical Surgery, Two Weeks, March 5
Surgery of Colon & Rectum, One Week, April 9, May 7
General Surgery, Two Weeks, April 23
Basic Principles in General Surgery, Two Weeks, April 9
Gallbladder Surgery, Ten Hours, April 9
Fractures & Traumatic Surgery, Two Weeks, March 12
Varicose Veins, Ten Hours, March 19, April 30
GYNECOLOGY—Office & Operative Gynecology, Two Weeks, March 12, April 16
Vaginal Approach to Pelvic Surgery, One Week, March 5, April 30
OBSTETRICS—General and Surgical Obstetrics, Two Weeks, March 26, May 7
MEDICINE—Internal Medicine, Two Weeks, May 7
Electrocardiography & Heart Disease, Two-Week Basic Course, March 12
Gastroscopy, Forty-hour Course, March 19
Dermatology, Two Weeks, May 7
RADIOLOGY—Diagnostic X-Ray, Two Weeks, April 30
Clinical Use of Radioactive Iodine, One Week, April 2
Clinical Uses of Radioisotopes, Two Weeks, May 7
PEDIATRICS—Intensive Review Course, Two Weeks, May 14
Neurological Diseases: Cerebal Palsy, Two Weeks, June 18
UROLOGY—Two-Week Course, April 16
Cystoscopy, Ten Days, by appointment

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PERSONALS

Dr. Arthur Devine, who recently completed a four-year residency in surgery at SUI, has joined **Drs. C. N. Cooper, C. J. Mikelson** and **L. L. Zager** in practice at Waterloo.

The medical staff of Mercy Hospital, Des Moines, has undertaken to raise $300,000 as its share of the institution's multi-million dollar rebuilding project.

Dr. Hugh LaMaster, who had practiced with **Dr. Everett B. Getty,** at Primghar, for a year and a half, left on January 7 to join the Belle Fourche Clinic, at Belle Fourche, South Dakota.

Dr. William D. Perrin, who will complete his internship at Iowa Methodist Hospital, Des Moines, in July, has announced that he will start general practice in Sumner. Dr. Perrin, formerly manager of the Coca-Cola bottling plant at Waterloo, applied for and secured a waiver of SUI's age limit at the time when he sought entrance to the College of Medicine.

The Catholic Layman's League honored **Dr. Thomas Redmond,** of Monticello, at a meeting at the Hotel Roosevelt in Cedar Rapids on December 15, for his outstanding work with that organization.

Dr. W. C. Eller is choral director at St. Mark's Episcopal Church at Waterloo. A part of his work in that capacity consists of arranging choral services such as the one presented there at Christmas time.

The Webster County Medical Society has made **Dr. J. H. Bruce** its president-emeritus in recognition of his 50 years of medical practice. He has been in Fort Dodge 26 years, and has been president of the Society twice.

About 450 visitors attended the formal opening of the new pediatrics department at St. Anthony's Hospital, Carroll, on December 18. Six new children's rooms and a sunporch-playroom have been redecorated by the Hospital Auxiliary at a cost of about $6,000.

Dr. Robert P. Woods, a neurosurgeon who practices at Topeka, Kansas, received a corneal transplant to his left eye at University Hospitals, Iowa City, in December. Dr. Woods' father, **Dr. A. H. Woods**, is professor emeritus of psychiatry at SUI.

Dr. Ada R. Perel, a psychiatrist and neurologist, has moved her practice from Iowa City to Des Moines.

The marriage of **Dr. Robert A. Smith** and Mrs. Dorothy Maddy took place at the Methodist Church in Centerville on December 20, 1955, and the couple went on a honeymoon trip to Las Vegas. Dr. Smith practices at Albia, and his bride has been his laboratory technologist.

Dr. Don H. Newland, of Belle Plaine, was one of the few successful hunters during the recent and brief Iowa deer season. He brought home a buck from near Estherville.

Dr. Paul J. Amlie moved his practice from Waverly to Blairstown in mid-December.

Plans for a $50,000 clinic building on the west side of Thirty-ninth Street between Ingersoll and Grand Avenues, in Des Moines, were disclosed on December 23 by **Drs. Addison W. Brown, Don O. Newland** and **Robert B. Allender,** obstetricians and gynecologists. Work on the structure will start in the spring. It will consist of a single story, providing 2,500 square feet of floor space, and the parking area will accommodate 20 automobiles.

Dr. Donald V. Hirst, of Council Bluffs, announced late in December that he had reached "the first milestone" in the cancer research he has been carrying on at Jennie Edmundson Hospital since 1952, the separation of the steroid hormone pregnandiol glucuronide by a method that avoids the incidental destruction of any of the other hormones contained in human urine. His technic involves freeze-drying the urine and then re-liquefying it by means of solvents that do not affect the 50 or more different kinds of steroids.

Dr. Hirst's work has been financed by grants from the Iowa Division of the American Cancer Society which to date have totalled $17,000. He says his work has been somewhat impeded by his having no infra-red spectrometer, with the result that he has had to send samples to Lincoln, Nebraska, for checking.

On January 1, **Dr. William K. Kienzle** dissolved his association with **Dr. L. J. Peck,** in Wellsburg, to take a residency at SUI. He has served the town since 1947, and Dr. Peck has been there slightly more than a year.

Dr. George H. Powers, who returned recently from service with the Navy, has moved temporarily into offices with **Dr. John Eisenach** in downtown Shenandoah. In the spring, he, Dr. Eisenach,

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CLINICAL REVIEWS

Mayo Clinic

AND

Mayo Foundation

April 9, 10 and 11, 1956
Rochester, Minnesota

This 3-day program will be devoted to lectures and discussions on problems of current interest in general medicine and surgery. The presentations will be made by staff members of the Mayo Clinic and the Mayo Foundation for Medical Education and Research.

The number of physicians who can be accommodated is necessarily limited. Those wishing to attend should communicate with Mr. R. C. Roesler, Mayo Clinic, Rochester, Minnesota.

There are no fees of any kind.

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King-Size Filter Tip **VICEROY**

Dr. Kenneth Gee and **Dr. Harold Henstorf** will occupy the new Shenandoah Medical Center which is being built on Highway No. 2 near the Hand Community Hospital.

The American College of Physicians, an organization of specialists in internal medicine and closely allied fields, has elected **Dr. L. J. Kirkham** to its membership. Dr. Kirkham practices at Mason City with **Drs. C. B. Tice** and **G. Travis Westly.**

On December 19, **Dr. Henry F. Dolan,** of Anamosa, was operated on for the removal of a frontal brain tumor at the Columbia Hospital, Milwaukee. His surgeon reported that the procedure had been successful and that no malignancy had been found. Dr. Dolan returned home on January 8.

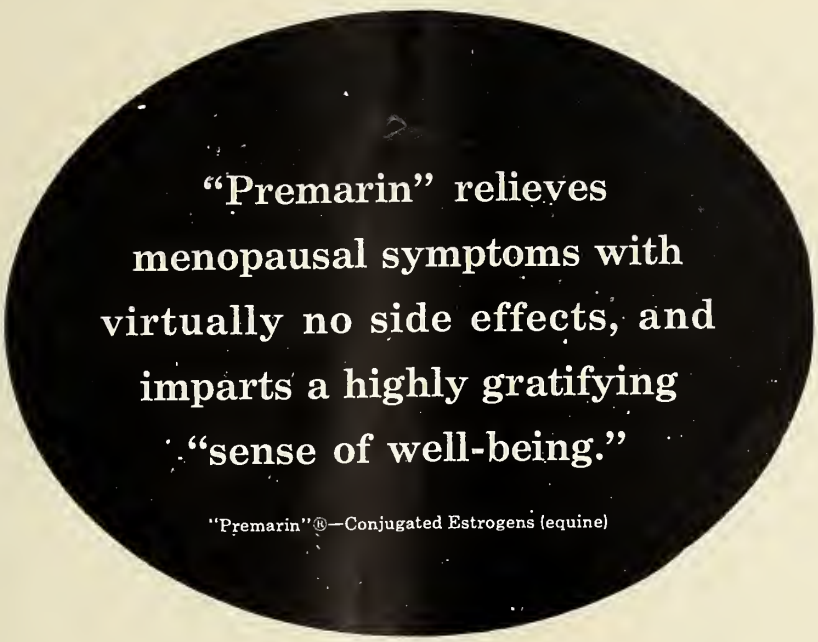
Mrs. Virginia Shield, of West Liberty, became the bride of **Dr. Samuel Bluhm,** Muscatine radiologist, on December 23.

During the meeting of the American Academy of Obstetrics & Gynecology in Chicago during December, **Dr. Walter C. Friday,** of Burlington, and **Dr. John J. Sullivan,** of Davenport, were inducted as fellows.

On New Year's Day, **C. H. Morse, M.D.,** of Eagle Grove, Iowa's oldest living physician and the oldest alumnus of the State University of Iowa, reached his hundredth birthday. Born at Maquoketa, he attended Iowa State Normal and taught school for several years. One day while helping a neighbor clear some land, he let his axe slip and cut his ankle. During his subsequent nine months' stay in bed, he decided to become a doctor and began reading medical books. After he had finished the two-year medical course which SUI then offered, he and some of his friends got up a petition that was influential in getting the curriculum extended a year. His class (1881) was the first to complete that third year of medicine. When, shortly after, he set out for the new town of which he had heard, Eagle Grove, his funds were sufficient to pay his fare only as far as Webster City, and he walked the remaining miles along the railroad track. He is a Life Member of the Iowa State Medical Society.

Investiture into fellowships in the American College of Radiology will be granted to **Dr. Eugene F. VanEpps,** head of the SUI Department of Radiology, at the organization's annual meeting in Chicago on February 10.

Dr. L. D. James moved into a new ten-room office building in Fairfield on January 10.





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(1) Poyne, R. W.; Shetlar, M. R.; Farr, C. H.; Hellbaum, A. A., ond Ishmoel, W. K.: J. Lab. & Clin. Med. 45:331, 1955. (2) Bunim, J. J.; Willioms, R. R., and Black, R. L.: J. Chron. Dis. 1:168, 1955. (3) Holbrook, W. P.: M. Clin. North Americo 39:405, 1955.

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According to **Dr. Elmer Hess,** president of the AMA, teen-agers should be prevented from driving after dark. "In my part of the country," he told the Los Angeles County Medical Association recently, "most of the after-dark accidents involve teen-agers."

Dr. Franklin H. Top, professor and head of the SUI Department of Hygiene and Preventive Medicine and head of the newly established Institute of Agricultural Medicine there, addressed the Los Angeles County Medical Association December 30 on "Preventive Medicine in Agriculture."

The JOURNAL'S apologies are offered to **Mr. E. A. McHugh,** representative at Spencer for Eli Lilly & Company. He was mistakenly identified as being affiliated with another pharmaceutical manufacturing company in the caption of a picture that was published in the December issue.

Dr. Grace Sawyer, superintendent of the State Hospital and School at Woodward, was released from the Dallas County Hospital, Perry, in mid-January following an attack of lobar pneumonia.

Dr. W. B. Henderson and **Dr. D. J. Ottilie** have terminated their association. Both will continue to practice in Oelwein.

Dr. Carlton T. Helseth, who recently finished his internship in Des Moines, has begun practice with **Dr. Donald Anderson** at 855 Forty-second Street.

Dr. Walter D. Abbott, Des Moines neurosurgeon, addressed the Hamilton County Medical Society in Webster City on December 19 regarding HF7225, the bill designed to permit social security payments to the permanently disabled.

Dr. Robert Mason, who until a few months ago engaged in general practice in the Highland Park district of Des Moines, began a residency in radiology at the Des Moines V-A Hospital on January 3.

Dr. Rubin H. Flocks, head of the Department of Urology at the SUI College of Medicine, is to be one of the guest speakers at the New Orleans Graduate Medical Assembly, February 27-March 1.

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Tuesday, February 21

During the day, medical and surgical clinics are to be presented by Sioux City doctors in Sioux City hospitals. At 7:20 p.m., F. E. Kelsey, Ph.D., of Vermillion, South Dakota, professor of pharmacology at the University of South Dakota School of Medicine, will speak on "Recent Applications of Radioactive Isotopes to Diagnostic Problems."

Wednesday, February 22

8:45 a.m. Moving picture: "Clinical Shock"
9:30 a.m. "Pharmacology of Topical Dermatological Therapy"
Robert G. Carney, M.D., professor of dermatology, SUI College of Medicine
10:15 a.m. "Carcinoma of the Lower Portion of the Colon and Rectum"
C. W. Mayo, M.D., head of the Surgical Section, Mayo Clinic
11:00 a.m. "Psychiatry in General Practice"
Wilbur R. Miller, professor of psychiatry, SUI College of Medicine
12:00 noon Luncheon, followed by questions and discussion relative to the morning papers
1:00 p.m. Moving picture: "Complete Neck Dissection"
2:00 p.m. "The Modern Use of Tracheotomy"
Benjamin Bafenkamp, M.D., Minneapolis
2:45 p.m. "Psychiatric Techniques"
Wilbur R. Miller, M.D.
3:30 p.m. "Contact Dermatoses"
Robert G. Carney, M.D.
4:15 p.m. Discussion of afternoon papers
6:30 p.m. Banquet
Address—C. W. Mayo, M.D.

Thursday, February 23

8:45 a.m. Moving picture: "Cancer Detection"
9:30 a.m. "Pregnancy in the Bicornuate Uterus"
Frederick H. Fall, M.D., formerly professor of obstetrics and gynecology at the Northwestern University Medical School
10:15 a.m. "Complications of Immunization"
C. Arden Miller, M.D., assistant professor of pediatrics, University of Kansas School of Medicine
11:00 a.m. "Acute Renal Failure"
Benjamin B. Wells, M.D., Ph.D., professor of medicine and director of the Department of Medicine, Creighton University School of Medicine
12:00 noon Luncheon, followed by questions and discussion relative to the morning papers
1:30 p.m. Moving picture: "Pre-Cancer Diagnosis of Cervix by Cytology"
2:00 p.m. "Splenomegaly and the Indications for Splenectomy"
Benjamin B. Wells, M.D.
2:45 p.m. "Management of the Standard Child"
C. Arden Miller, M.D.
3:30 p.m. "Ovarian Carcinoma"
Frederick H. Fall, M.D.
4:15 p.m. Discussion of afternoon papers

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1. Moyer, J.H., in discussion of Galen, W.P., and Duke, J.F.: Outpatient Treatment of Hypertension with Hexamethonium and Hydralazine, South. M.J. *47*:858 (Sept.) 1954.

2. Moyer, J.H., Dennis, E., and Ford, R.: Drug Therapy (Rauwolfia) of Hypertension. II. A Comparative Study of Different Extracts of Rauwolfia When Each Is Used Alone (Orally) for Therapy of Ambulatory Patients with Hypertension, A.M.A. Arch. Int. Med. *96*:530 (Oct.) 1955.

3. Wilkins, R.W.; Stanton, J.R., and Freis, E.D.: Essential Hypertension. Therapeutic Trial of Veriloid, a New Extract of Veratrum viride, Proc. Soc. Exper. Biol. & Med. *72*:302 (Nov.) 1949.

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February 16 ..... Suicide
February 23 ..... Infantile Paralysis

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February 6 ..... Boy-Girl Relationships
February 13 ..... Preparation for Marriage
February 20 ..... Personal Health
February 27 ..... Acne

KCRG-TV—Cedar Rapids, Iowa

Sunday at 12:00 noon

February 5 ..... Sleep
February 12 ..... What Are Teen-Age Problems?
February 19 ..... Boy-Girl Relationships
February 26 ..... Preparation for Marriage

KTIV-TV—Sioux City, Iowa

Saturday at 3:30 p.m.

February 4 ..... Trends in Psychiatry
February 11 ..... Sleep
February 18 .... What Are Teen-Age Problems?
February 25 ..... Boy-Girl Relationships

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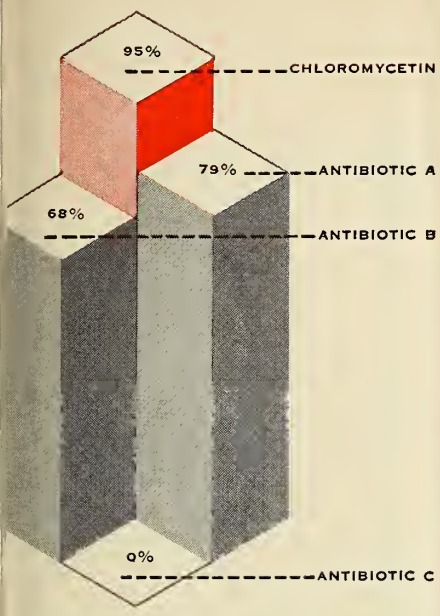
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Vol. XLVI MARCH, 1956 No. 3

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9:00 Invocation

Reverend Charles M. Houser, D.D.

Address of Welcome

Walter D. Abbott, M.D., Des Moines, President of the Polk County Medical Society

Response

Paul W. Brecher, M.D., Storm Lake, Chairman, Judicial Council

9:15 President's Address

Lonnie A. Coffin, M.D., Farmington, President of the Iowa State Medical Society

9:30 Medicine in a Changing World

David B. Allman, M.D., Atlantic City, New Jersey

10:00 Hernias and Hydroceles in Infancy and Childhood

Tague C. Chisholm, M.D., Minneapolis, Minnesota

10:30 Recess to visit exhibits

11:00 Real Versus Supposed Diseases of the Endocrine Glands

Edward H. Rynearson, M.D., Rochester, Minnesota

11:30 Some Surgical Aspects of Cancer of the Colon

Edward S. Judd, Jr., M.D., Rochester, Minnesota

Tuesday Morning, April 24

9:00 Industrial Noise and Occupational Deafness

C. Stewart Nash, M.D., Rochester, New York

9:30 Workmen's Compensation
Alexander P. Aitken, M.D., Brookline, Massachusetts

10:00 Industrial Dermatoses

Leonard F. Weber, M.D., Chicago, Illinois

10:30 Recess to visit exhibits

11:00 A Psychiatrist Looks at the Problems of General Practice

Hugh T. Carmichael, M.D., Chicago, Illinois

11:30 The Diagnostic Significance of a Lump in the Neck

Hayes Martin, M.D., New York, New York

Wednesday Morning, April 25

9:00 Exhibits

10:00 Cancer Detection in the Office of the Generalist
John S. DeTar, M.D., Milan, Michigan

10:30 The Prevention of Prematurity
Emil G. Holmstrom, M.D., Salt Lake City, Utah

11:00 Treatment of the Patient With Terminal Malignancy

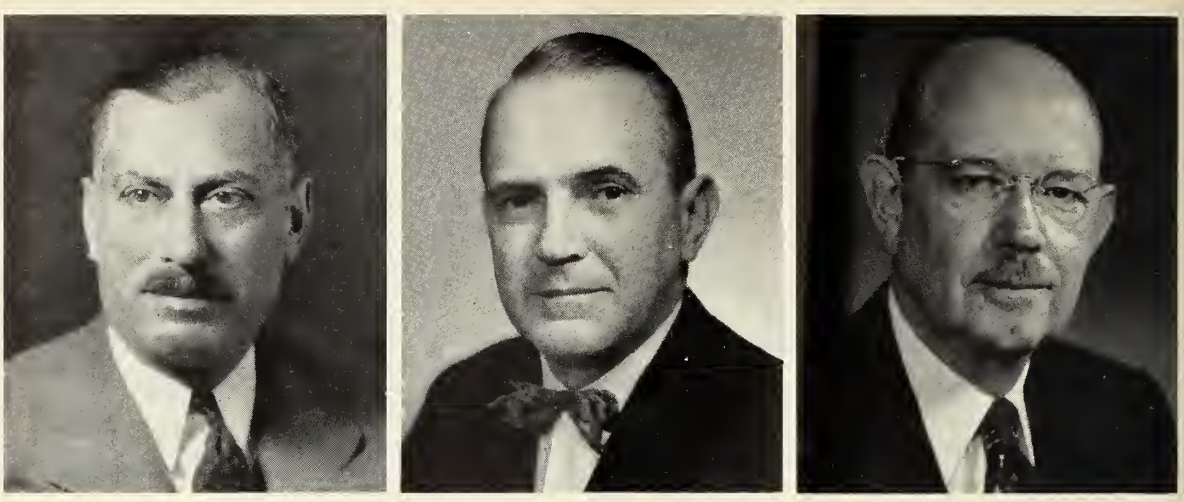
Alex E. Brown, M.D., Rochester, Minnesota

11:30 Report of the House of Delegates

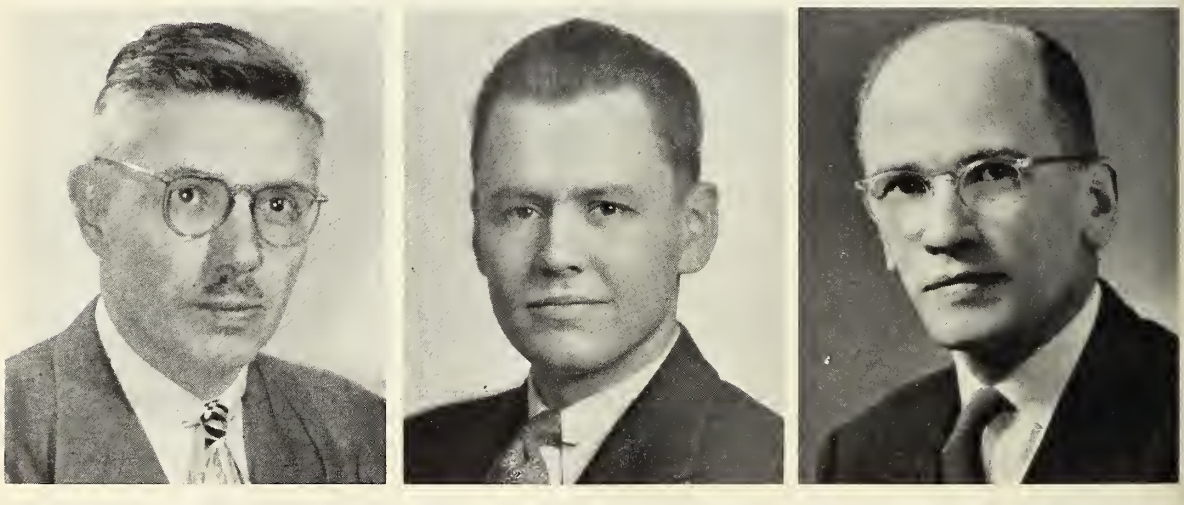
President-elect's Address

Wendell L. Downing, M.D., LeMars, President-elect of the Iowa State Medical Society

Installation of President



David B. Allman, M.D. (left), trustee of the American Medical Association, senior consulting surgical chief at the Atlantic City Hospital, chief surgeon at the Betty Bacharach Home for Afflicted Children, and honorary chief of surgery at the New Jersey State Hospital, Ancora, New Jersey. Alexander P. Aitken, M.D. (center), professor of orthopedic surgery at the Tufts College Medical School, director and surgeon-in-chief of the Orthopedic Service at Boston City Hospital, and chairman of the Subcommittee on Industrial Relations of the American College of Surgeons. Alex E. Brown, M.D. (right), head of the Section of Medicine at the Mayo Clinic and associate professor of medicine in the Mayo Foundation Graduate School of the University of Minnesota.



Hugh T. Carmichael, M.D. (left), clinical professor of psychiatry at the University of Illinois College of Medicine, Chicago. Tague C. Chisholm, M.D. (center), clinical assistant professor of surgery at the University of Minnesota College of Medicine, Minneapolis. John S. DeTar, M.D. (right), Milan, Michigan, president of the American Academy of General Practice.

Section Meetings

MEDICAL SECTION

George E. Mountain, M.D., Des Moines
Chairman

South Meeting Room, Third Floor

Monday Afternoon, April 23

2:00 Recent Advances in the Treatment of Thyroid Diseases
Edward H. Rynearson, M.D., Rochester, Minnesota

2:30 Office Management of Diabetes Mellitus
Arthur G. Lueck, M.D., Des Moines

2:50 Recess to visit exhibits

3:20 Early Versus Late Ambulation in the Treatment of Cardiac Problems
Lewis E. January, M.D., Iowa City

3:50 A Critical Evaluation of the Treatment of Hypertension
Walter M. Kirkendall, M.D., Iowa City

4:20 The Differential Diagnosis of Diffuse Pulmonary Infiltrations
Irving J. Hanssmann, M.D., Council Bluffs

Tuesday Afternoon, April 24

2:00 Panel Discussion on Occupational Health and Injury
Carl J. Lohmann, M.D., Burlington, Moderator
The Industrial Physician
Allan K. Harcourt, M.D., Indianapolis, Indiana
The Insurance Carrier
Mr. Charles F. White, Chicago, Illinois
The Employer
Mr. Robert Loetscher, Dubuque
Workmen's Compensation Laws
Alexander P. Aitken, M.D., Brookline, Massachusetts

3:00 Recess to visit exhibits

3:30 The Diagnosis of Fever of Obscure Origin
Alex E. Brown, M.D., Rochester, Minnesota

4:00 Contact Dermatitis
Leonard F. Weber, M.D., Chicago, Illinois

4:30 The Differential Diagnosis and Treatment of the Jaundiced Patient
George Thornton, M.D., Iowa City

SURGICAL SECTION

George H. Ashline, M.D., Keokuk
Chairman

North Meeting Room, Third Floor

Monday Afternoon, April 23

2:00 Surgical Treatment of Diverticulitis
Edward S. Judd, Jr., M.D., Rochester, Minnesota

2:30 Experiences With the Surgical Treatment of Gall Bladder Disease
Howard I. Down, M.D., Sioux City

2:50 Recess to visit exhibits

3:20 Ulcerative Colitis: Its Complications and Their Influence on Indications for Surgical Treatment
Robert T. Tidrick, M.D., Iowa City

3:50 Results of Treatment of Carcinoma of the Breast in General Surgical Practice
Kenneth E. Lister, M.D., Ottumwa

4:10 New Surgical Approach to Relief of Angina Pectoris
Louis T. Palumbo, M.D., Des Moines

4:30 The Surgeon and the Grievance Committee
Guy E. McFarland, Jr., M.D., Ames

Tuesday Afternoon, April 24

2:00 Panel Discussion on Occupational Health and Injury
(The surgeons and orthopedists will join the Medical Section in the South Room for this panel discussion.)

3:00 Recess to visit exhibits

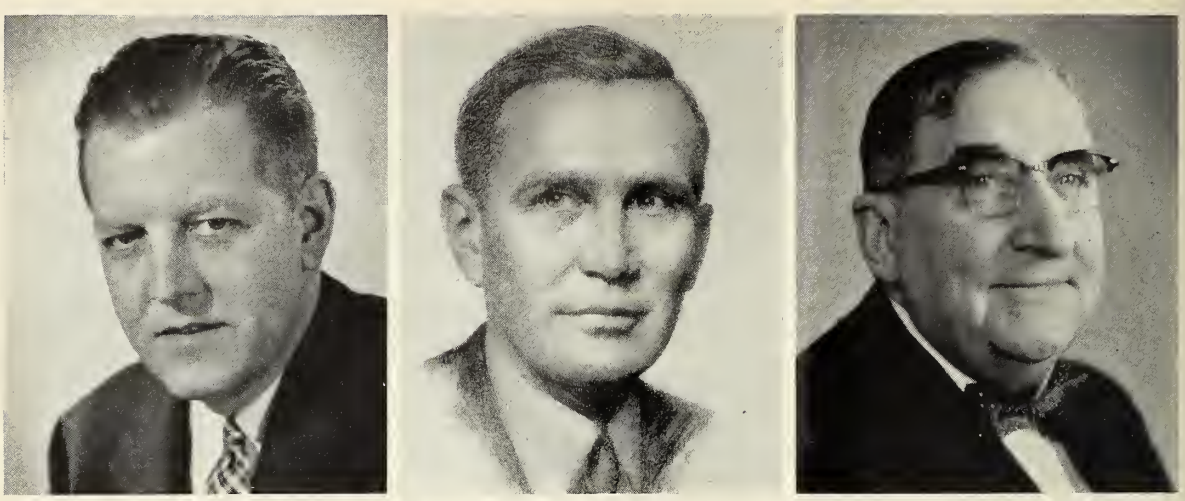
3:30 Mouth Cancer
Hayes Martin, M.D., New York, New York

4:00 Surgical Repair of Atrial Septal Defects Under Hypothermia
Johann L. Ehrenhaft, M.D., Iowa City

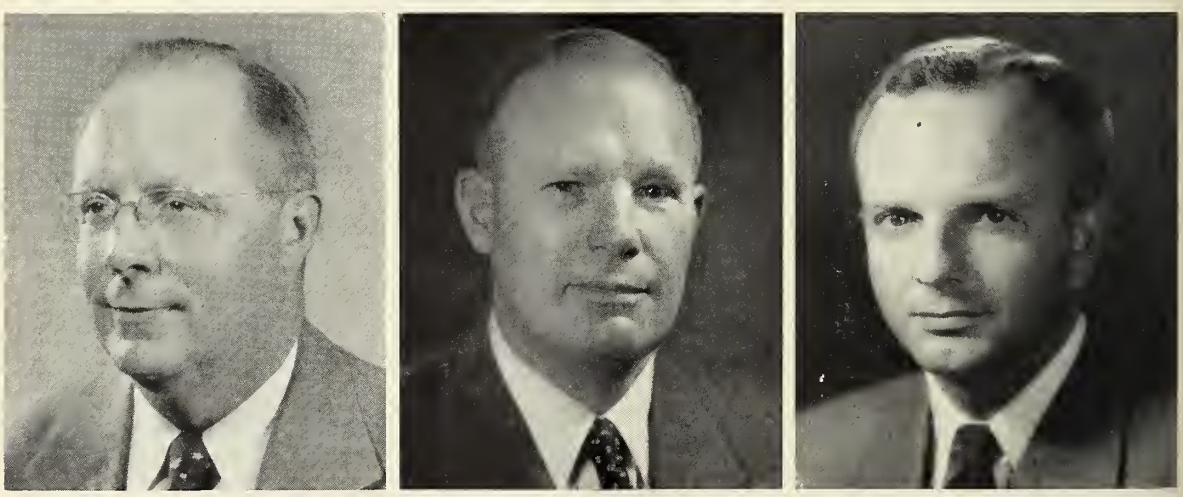
4:30 Clinical Investigation of Peripheral Nerve Injuries
George E. Perret, M.D., Iowa City

Attention: All Pathologists and Other Physicians

Plan to have as many of your laboratory technologists as possible attend the Hematology Seminar sponsored by the Iowa Society of Medical Technologists and Iowa Association of Pathologists on the afternoon of April 23. Program will appear in the April issue.



Emil G. Holmstrom, M.D. (left), professor and head of the Department of Obstetrics and Gynecology at the University of Utah College of Medicine. Hayes Martin, M.D. (center), attending surgeon at Memorial Hospital and associate professor of clinical surgery at Cornell Medical College, New York City. C. Stewart Nash, M.D. (right), otolaryngological consultant to the faculty of the University of Rochester College of Medicine and member of the Committee of Medical Consultants for the Workmen's Compensation Board of the State of New York.



Edward H. Rynearson, M.D. (left), chairman of the Sections of Endocrinology and Metabolism at the Mayo Clinic and professor of medicine in the Mayo Foundation Graduate School of the University of Minnesota. L. F. Weber, M.D. (center), clinical professor of dermatology at the University of Illinois College of Medicine, Chicago. Edward S. Judd, Jr., M.D. (right), staff surgeon at the Mayo Clinic and associate professor in the Mayo Foundation Graduate School of the University of Minnesota.

Section Meetings (Continued)

PEDIATRIC SECTION

Preston E. Gibson, M.D., Davenport
Chairman

Room C, Third Floor

Monday Afternoon, April 23

2:00 Tumors in Infancy and Childhood
Tague C. Chisholm, M.D., Minneapolis, Minnesota
2:45 Recess to visit exhibits
3:20 Causes of Dyspnea in Children
Eugene F. VanEpps, M.D., Iowa City
4:00 Winning Paper in Pediatrics Essay Contest
4:30 Business Meeting

OBSTETRICS & GYNECOLOGY SECTION

Charles V. Edwards, M.D., Council Bluffs
Chairman

Downstairs Meeting Room

Tuesday Afternoon, April 24

2:00 Stress Incontinence
William B. Goddard, M.D., Iowa City
2:20 Functional Uterine Bleeding
Emil G. Holmstrom, M.D., Salt Lake City, Utah
2:50 Recess to visit exhibits
3:20 Current Practical Gynecology
Mitchell J. Nechtow, M.D., Chicago, Illinois
3:50 Hormones in Present Day Gynecology
James T. Bradbury, Ph.D., Iowa City

EYE SECTION

Glenn L. Walker, M.D., Burlington
Chairman

Room B, Third Floor

Monday Afternoon, April 23

2:00 The Use of Miotics in Strabismus
Philip Knapp, M.D., New York, New York
2:30 Results of Corneal Transplants Performed at the University of Iowa
Alson E. Braley, M.D., Iowa City
2:50 Recess to visit exhibits
3:20 Problems in the Diagnosis and Treatment of Concomitant Strabismus
Hermann Burian, M.D., Iowa City
3:40 The Problem of Horizontal Imbalance in Private Practice
Joseph E. Dvorak, M.D., Sioux City
4:00 Stress and Allergy in Ophthalmology
Leland H. Prewitt, M.D., Ottumwa

EAR, NOSE AND THROAT SECTION

Byron M. Merkel, M.D., Des Moines
Chairman

Room B, Third Floor

Tuesday Afternoon, April 24

2:00 Medico-legal Aspects of Industrial Deafness
C. Stewart Nash, M.D., Rochester, New York
Discussants: Dean M. Lierle, M.D., Iowa City
Gordon F. Harkness, M.D., Davenport
2:50 Recess to visit exhibits
3:20 Reconstruction of the Nasal Septum
William C. Huffman, M.D., Iowa City
3:40 Headaches Caused by Inhalant Allergies
Ralph C. Carpenter, M.D., Marshalltown
4:00 Treatment of Nerve Deafness
A. Reas Anneberg, M.D., Carroll

MENTAL HEALTH SECTION

Leo B. Sedlacek, M.D., Cedar Rapids
Chairman

Room C, Third Floor

Tuesday Afternoon, April 24

2:00 A Psychotherapist's Self-Evaluation
Hugh T. Carmichael, M.D., Chicago, Illinois
2:30 A Mental Health Program for Iowa
Charles C. Graves, M.D., Marlboro, New Jersey
2:50 Recess to visit exhibits
3:30 Panel Discussion on Present Day Drug Therapy of the Emotionally and Mentally Disturbed Patient
Charles C. Graves, M.D., Marlboro, New Jersey
Harry B. Weinberg, M.D., Davenport
Paul E. Huston, M.D., Iowa City

ANNUAL BANQUET

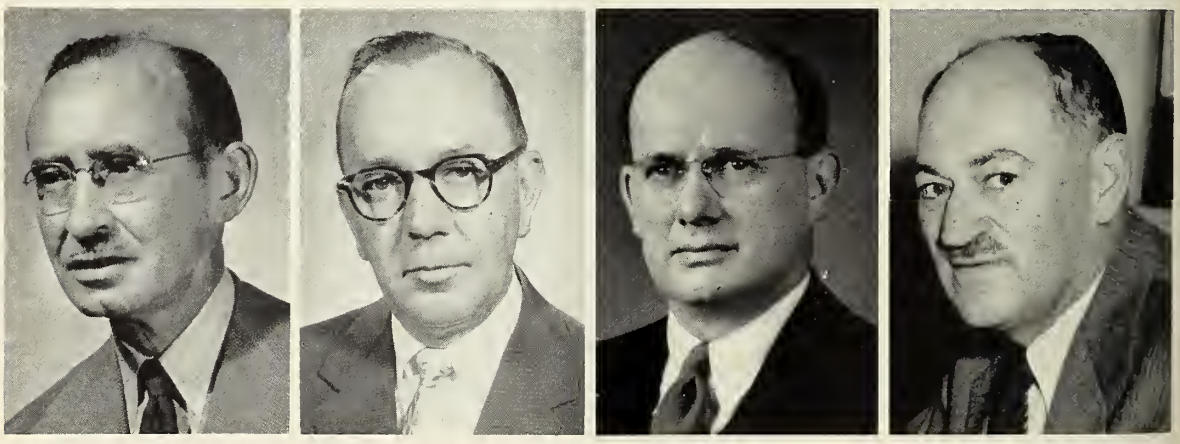
Tuesday Evening, April 24

Grand Ball Room—Hotel Savery
Dinner—7:00 p.m.
Address: "The General Practice of Medicine, Its Present Problems and Future Status"
John S. DeTar, M.D., Milan, Michigan
President, American Academy of General Practice



Charles C. Graves, M.D. (left), clinical director of teaching, training and research, State Hospital, Marlboro, New Jersey. Philip Knapp, M.D. (center), instructor at the Institute of Ophthalmology, New York City. Mitchell J. Nechtow, M.D. (right), associate clinical professor of gynecology at the Cook County Graduate School of Medicine and associate professor of gynecology and obstetrics at the Chicago Medical School.

INDUSTRIAL HEALTH PANEL



Allan K. Harcourt, M.D. (left), member of the teaching staff in surgery at the University of Indiana College of Medicine. Charles F. White (second), claims service supervisor for the Middle West Division of the Liberty Mutual Insurance Company. Robert Loetscher (third), of the Farley and Loetscher Company, Dubuque. These three men, with Dr. Alexander P. Aitken, will compose a panel for the discussion of Occupational Health and Injury at a joint meeting of the Medical and Surgical Sections, Tuesday afternoon. C. J. Lohmann, M.D. (far right), chairman of the ISMS Subcommittee on Industrial Health will be the moderator.

Special Meetings, Luncheons and Dinners

Sunday, April 22

STATE SOCIETY OF IOWA MEDICAL WOMEN and BRANCH 19, AMERICAN MEDICAL WOMEN'S ASSOCIATION

The State Society of Iowa Medical Women and Branch 19, American Medical Women's Association, will hold its annual meeting at the home of Dr. Grace Doane, 4140 Grand Avenue, Des Moines, at 7:30 p.m. Sunday, April 22. All women who are members of or eligible for membership in the Iowa State Medical Society are invited to attend. Dr. Esther C. Marting of Cincinnati, Ohio, President of the American Medical Women's Association, will be present.

GOLF TOURNAMENT

The annual golf tournament will be held Sunday, April 22, at the Wakonda Club in Des Moines. Physicians may play at any time during the day but the majority will start at 1:00 p.m. Dinner and the awarding of prizes will follow; and a good time is expected by all. Please make reservations as early as possible with Dr. Harold J. McCoy, 212 Bankers Trust Building, Des Moines, Iowa.

Monday, April 23

PAST PRESIDENTS' LUNCHEON

12:15 p.m.
Downstairs Luncheon Room

PRECEPTORS' LUNCHEON

12:15 p.m.
Downstairs Luncheon Room
Reservations: Mr. W. R. Quinn
529 36th Street, Des Moines 12

BLUE SHIELD

Board of Directors' Breakfast
Hotel Savery—8:00 a.m.

Participating Physicians
Annual Meeting—5:00 p.m.—South Room

IOWA ASSOCIATION OF PATHOLOGISTS

Executive Council—10:00 a.m.—Room A
Luncheon—12:15 p.m.—Downstairs Luncheon Room
Business Meeting Following Lunch
Reservations: R. F. Birge, M.D.
310 Bankers Trust Bldg., Des Moines 9

IOWA ASSOCIATION OF PATHOLOGISTS and IOWA SOCIETY OF MEDICAL TECHNOLOGISTS

Dinner—6:30 p.m.
Hermitage Room—Des Moines Club
Guest Speaker: John W. Rebuck, M.D., Ph.D.
Hematologist, Henry Ford Hospital
Detroit, Michigan
Reservations: R. F. Birge, M.D.
310 Bankers Trust Bldg., Des Moines 9

IOWA RADIOLOGICAL SOCIETY

Business Meeting—2:00 p.m.—Room A

IOWA SOCIETY OF ANESTHESIOLOGISTS

West Room—Des Moines Club
Study Commission Meeting—4:00 p.m.
Social Hour—5:30 p.m.
Dinner—6:30 p.m.
Speaker and Business Meeting Following Dinner
Reservations: Thomas A. Bond, M.D.
707A Equitable Bldg., Des Moines 9

IOWA ACADEMY OF SURGERY

Dinner—6:00 p.m.
Colonial Room—Des Moines Club
Reservations: R. B. Stickler, M.D.
503 Equitable Bldg., Des Moines 9

IOWA PEDIATRIC SOCIETY

Garden Room—Hotel Kirkwood
Social Hour—6:30 p.m.
Dinner—7:30 p.m.
Reservations: R. E. Dyson, M.D.
3200 University, Des Moines 11

CHARITY DANCE

Terrace Room—Hotel Savery—9:00 p.m.
Don Hoy and His Orchestra
Sponsored by the Woman's Auxiliary for the Benefit of Its Nurses' Loan Fund
Reservations: Mrs. R. P. Mason
5818 Chamberlain Drive, Des Moines 12

Tuesday, April 24

BLUE SHIELD

Board of Directors' Breakfast
Hotel Savery—8:00 a.m.

IOWA NEUROPSYCHIATRIC SOCIETY

Luncheon—12:15 p.m.
Parlors A & B—Hotel Savery
Reservations: H. C. Merillat, M.D.
2801 Woodland Ave., Des Moines 12

IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY

Luncheon—12:15 p.m.
Grand Ball Room—Hotel Savery
Reservations: W. C. Keettel, M.D.
University Hospitals, Iowa City

IOWA ORTHOPEDIC SOCIETY

Luncheon—12:15 p.m.—Downstairs Luncheon Room
Reservations: Wm. A. Baird, M.D.
315 5th Street, Ames

IOWA ACADEMY OF GENERAL PRACTICE

Luncheon—12:15 p.m.—Hotel Savery
Reservations: Mrs. Isabelle Wandling
911 Bankers Trust Bldg., Des Moines 9

The House of Delegates

Open to all members

First Meeting—Sunday, April 22, 2:00 p.m.

South Room, Veterans Memorial Auditorium

Roll Call

Approval of Minutes of Meeting, April 27, 1955

Reports of Officers

Reports of Committee Chairmen

Memorials and Communications

New Business

Election of Committee on Nominations

SPEAKER



Herman J. Smith, M.D.

Second Meeting—Wednesday, April 25, 7:30 a.m.

North Room, Veterans Memorial Auditorium

Roll Call

Reading of Minutes

Report of Committee on Nominations

Election of Officers

Reports of Committees

Unfinished Business

New Business

Announcement of Committees

Adjournment

CHAIRMEN OF SECTION MEETINGS



From left to right (top row), George H. Ashline, M.D., Keokuk, Surgical Section; Charles V. Edwards, M.D., Council Bluffs, Obstetrics & Gynecology Section; Preston E. Gibson, M.D., Davenport, Pediatric Section; Carroll B. Larson, M.D., Iowa City, Orthopedics Section; (bottom row) Byron M. Merkel, M.D., Des Moines, Ear, Nose & Throat Section; George E. Mountain, M.D., Des Moines, Medical Section; Leo B. Sedlacek, M.D., Cedar Rapids, Mental Health Section; Glenn L. Walker, M.D., Burlington, Eye Section.

Scientific Exhibits

State University of Iowa College of Medicine

Department of Otolaryngology and Maxillofacial Surgery—D. M. Lierle, M.D., and W. C. Huffman, M.D., Department of Otolaryngology

Atypical Sexual Development—Departments of Obstetrics and Gynecology, Urology and Pediatrics

Surgical Repair of Atrial Septal Defect Under Hypothermia—J. L. Ehrenhaft, M.D., and J. Moyers, M.D., Department of Surgery

Treponema Pallidum Immobilization—I. H. Borts, M.D., and R. E. Evans, Ph.D., Department of Hygiene and Preventive Medicine

Diagnosis of Atrial Septal Defect—J. M. Martt, M.D., G. N. Bedell, M.D., E. O. Theilen, M.D., J. B. Wild, M.D., and J. W. Culbertson, M.D., Department of Internal Medicine, Cardiovascular Laboratory

Oral Surgery—M. L. Hale, D.D.S., V. S. Hinds, D.D.S., and D. E. Waite, D.D.S., Department of Oral Surgery, College of Dentistry

Traumatic Injuries of the Male Genitalia—D. A. Culp, M.D., and W. C. Huffman, M.D., Department of Urology

Adult Strümpell-Marie Arthritis—W. D. Paul, M.D., and David Paul, M.D., Department of Physical Medicine and Rehabilitation

Muscular Dystrophy—W. D. Paul, M.D., M. K. Newman, M.D., and J. I. Routh, Ph.D., Department of Physical Medicine and Rehabilitation

Research and Training Are the Keys to Better Mental Health—J. Arnold, M.D., P. E. Huston, M.D., H. H. Comly, M.D., M. Pepernik, M.D., D. E. Wasser, M.D., and W. R. Miller, M.D.

Contact Dermatitis—R. Nomland, M.D., R. G. Carney, M.D., and C. E. Radcliffe, M.D., Department of Dermatology

Relationship of Control and Duration of Diabetes to Incidence and Degree of Retinopathy—R. C. Hardin, M.D., T. L. Johnston, M.D., H. B. Ostler, M.D., and Helen G. Kelley, Department of Ophthalmology

Exhibit—Hospital Administration

Veterans Administration Hospital, Iowa City

Laminography—W. W. Sands, M.D., Radiological Service

Direct Surgical Correction of Peripheral Arterial Insufficiency—F. D. Staab, M.D., and E. S. Brintnall, M.D., Surgical Service

Atlas of Ventriculography—O. R. Hyndman, M.D., and M. W. Van Allen, M.D., Surgical Service

Clinicopathologic Study of Congenital Arterio-Venous Fistulae of the Lower Extremities—R. L. Lawton, M.D., R. T. Tidrick, M.D., and E. S. Brintnall, M.D., Surgical Service

The Use of Isotopes in Hematologic Disorders—R. E. Peterson, M.D., Radioisotope and Medical Service

Diseases of the Blood Fats—M. L. Armstrong, M.D., and W. D. Connor, M.D., Medical Service

Veterans Administration Hospital, Des Moines

The Respiratory Laboratory in the General Hospital—James E. Kelsey, M.D., Ellis Oldham, and Steven M. Horvath, Ph.D., Medical Service

Upper Dorsal Sympathectomy: A New Surgical Approach—Louis T. Palumbo, M.D., Surgical Service

General

Cancer Incidence and Mortality—Frederick W. Mulsow, M.D., Cedar Rapids

Interventricular Septal Defect—Diagnosis and Correction—Blank Memorial Heart Station, Des Moines

Gross Lesions in Pathology—Iowa Association of Pathologists and Nebraska Association of Pathologists

Prothrombin Activity—Iowa Society of Medical Technologists

The Physician and Surgeon as a Medical Officer in the Iowa National Guard—John R. Hyde, M.D., Emmetsburg

The Program of Counseling and Placement—Iowa State Nurses' Association

Physician-Pharmacist Relations—Iowa Pharmaceutical Association

Exhibit—Iowa Veterinary Medical Association

Public Health—Iowa State Department of Health

We Swallow Our Own Story—Des Moines-Polk County Health Departments

Rehabilitation—New Hope for the Disabled—Vocational Rehabilitation Division

Modern Drug Therapy and the Treatment of Tuberculosis—Iowa Tuberculosis Association and Iowa Trudeau Society

Devices and Services for the Blind—Iowa Commission for the Blind

Hearing Conservation—Iowa State Committee for the Conservation of Hearing

Hearing Rehabilitation—Des Moines Hearing and Speech Center

Cancer of the Esophagus—Iowa Division, American Cancer Society

Vaginal Cytology—National Cancer Institute

Exhibit—National Foundation for Infantile Paralysis

Luncheon Service Available at Auditorium

To accommodate special groups for luncheon meetings, we have arranged for all luncheons served at the Auditorium to be held in a Downstairs Luncheon Room, which is on the floor below the Arena Floor where all exhibits are located. Advance reservations will be appreciated. At the rear of the Arena Floor a lunch room will be set up for the convenience of physicians and exhibitors desiring a light lunch.

Technical Exhibitors

Abbott Laboratories, North Chicago, Illinois

A. S. Aloe Company, St. Louis, Missouri

American Hospital Supply Corporation, Evanston, Illinois

American Optical Company, Des Moines, Iowa

Ames Company, Inc., Elkhart, Indiana

Audio-Digest Foundation, Glendale, California

Audograph Company of the Northwest, Des Moines, Iowa

Bausch & Lomb Optical Company, Chicago, Illinois

Benson Optical Company, Minneapolis, Minnesota

Blue Cross-Blue Shield Plans, Des Moines-Sioux City

Borden Company, New York, New York

S. H. Camp & Company, Jackson, Michigan

Central Pharmacal Company, Seymour, Indiana

Chicago Reference Book Company, Chicago, Illinois

CIBA Pharmaceutical Products, Inc., Summit, New Jersey

Cole Chemical Company, St. Louis, Missouri

Comfa-Lounge Massage Chair Company, Des Moines, Iowa

Desitin Chemical Company, Providence, Rhode Island

Dictaphone Corporation, Des Moines, Iowa

Doho Chemical Corporation, New York, New York

Eastman Kodak Stores, Inc., Des Moines, Iowa

Eisele & Company, Nashville, Tennessee

Paul B. Elder Company, Bryan, Ohio

Encyclopedia Americana, Grand Rapids, Michigan

Endo Products, Inc., Chicago, Illinois

H. G. Fischer & Company, Franklin Park, Illinois

C. B. Fleet Company, Lynchburg, Virginia

Foot-So-Port Shoe Company, Waterloo, Iowa

General Electric Company, X-Ray Department, Des Moines, Iowa

Hoffmann-La Roche, Inc., Nutley, New Jersey

Holland-Rantos Company, Inc., New York, New York

Holmes, Prouty, Murphy & May, Des Moines, Iowa

House of Vision, Des Moines, Iowa

Lederle Laboratories Division, American Cyanamid Company, Pearl River, New York

Eli Lilly and Company, Indianapolis, Indiana

M & R Laboratories, Columbus, Ohio

Maico Des Moines, Des Moines, Iowa

Marion Laboratories, Kansas City, Missouri

Mead Johnson & Company, Evansville, Indiana

Medco Products Company, Inc., Tulsa, Oklahoma

Medical Protective Company, Fort Wayne, Indiana

Merrill Lynch, Pierce, Fenner & Beane, Des Moines, Iowa

Milex Products, Chicago-Peoria, Illinois

Miller Surgical Company, Chicago, Illinois

V. Mueller & Company, Chicago, Illinois

National Dairy Council, Chicago, Illinois

Parke, Davis & Company, Detroit, Michigan

Pet Milk Company, St. Louis, Missouri

Pfizer Laboratories, Brooklyn, New York

Physicians and Hospitals Supply Co., Minneapolis, Minnesota

Picker X-Ray Corporation of Iowa, Des Moines-Sioux City

Professional Management, Waterloo, Iowa

A. H. Robins Company, Inc., Richmond, Virginia

J. B. Roerig and Company, Chicago, Illinois

Sandoz Pharmaceuticals, Hanover, New Jersey

W. B. Saunders Company, Philadelphia, Pennsylvania

Schering Corporation, Bloomfield, New Jersey

G. D. Searle & Company, Chicago, Illinois

Security Laboratories, Burlington, Iowa

E. R. Squibb & Sons, Division, Olin-Mathiesen Chemical Company, New York, New York

Standard Chemical Company, Des Moines, Iowa

Stuart Company, Chicago, Illinois

Sutliff & Case Company, Inc., Peoria, Illinois

S. J. Tutag & Company, Detroit, Michigan

Ulmer Pharmacal Company, Minneapolis, Minnesota

United Medical Equipment Company, Kansas City, Missouri

Upjohn Company, Kalamazoo, Michigan

U. S. Vitamin Corporation, New York, New York

Whylie Opticians, Des Moines, Iowa

Scientific Articles

Basic Science Aspects of Thyroid Disease

A. R. McINTYRE, M.D., PH.D.

OMAHA, NEBRASKA

THE THYROID, more than any other topic in all of medicine, can be said to unite the basic pre-clinical sciences with clinical studies. It will be recalled that most of the early work on the thyroid, unlike the work on the other endocrine glands, was done by clinicians. Indeed clinicians established the importance of the thyroid and worked out, in a general sort of way, the mechanisms by which it operates.

Some of the things that I wish to discuss will certainly be no news. In fact, I think that I shall probably pose more questions than I shall answer. In the diagram that accompanies this paper I have attempted to put all of the current information concerning the thyroid gland, its control, and its production of thyroxine and triiodothyronine. At the top right-hand corner, the triangular group labeled C (for cortex), H (for hypothalamus), and T (for thalamus) indicates the three-cornered activity of this portion of the central nervous system. At T you will see arrows labeled S and V for the somatic and visceral afferent components, which of course perpetually bombard the thalamus during the individual's waking hours. It is quite easy for anyone to see that there are great possibilities for disturbance of the hypothalamus from activity of the cortex (represented in the diagram by the circle of arrows), and also by the effects of bombardment of the thalamus by the sensory impulses reaching it over the visceral and somatic afferents.

It will be recalled that the hypothalamus and the anterior pituitary body (labeled A.P. in the diagram) have a peculiar blood supply. A portal system enters the anterior pituitary body from the hypothalamic region so that a part of its blood supply has already bathed the hypothalamic area. For that reason, changes in the activity of the hypothalamus influence the blood supply reaching the anterior pituitary body, possibly resulting in the liberation of the thyroid-stimulating hormone labeled T.S.H. A simple illustration will help to clarify this relationship. Let us suppose that an individual is exposed to a low ambient temperature. As a result, impulses reach the thalamus over S, the somatic afferent. In turn, information is conveyed from the thalamus to the hypothalamus, changing the activity of the hypothalamic area. This change, by reason of the portal system, alters the blood supply reaching the anterior pituitary body. The anterior pituitary then increases its production of T.S.H. The T.S.H., in turn, stimulates the thyroid to increased activity, and there is an outpouring of the thyroid hormone thyroxine that results in an increase in basal metabolic rate and an increase in the rate of heat production. It is thus that the body attempts to counteract the effect of external cold.

It may well be asked whether there is a direct nervous control of the thyroid tissue. The answer, apparently, is "No." Evidence seems to indicate that the transplanted thyroid, innocent of external nerves, responds just as readily to the thyroid-stimulating hormone as does a gland with the nerves intact.

THYROXINE AND TRIIODOTHYRONINE

Today, of course, everybody knows that one of the essential ingredients of the diet is iodide. At the left-hand side of the diagram, it will be seen that iodide reaches the gland by way of the food. There the iodide is oxidized to iodine, probably by the aid of peroxidase in the thyroid follicle.

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Cyanide compounds decrease the efficiency with which iodine is normally utilized, and in the presence of cyanides, a higher than normal intake of iodine is required to prevent the development of hypothyroidism. Normally, this oxidized iodine is very rapidly converted to diiodotyrosine, an organic compound. Consequently there is very little free iodine in the gland at any one moment. The presence of thiouracil and related compounds in the thyroid tissue prevents the formation of diiodotyrosine. The mechanism appears to be related to the reducing action of the thiourea compounds, which inhibit directly or indirectly the oxidation of 1^- to 1_2. As a result, thyroxine cannot be synthesized, and as the reserves of thyroxine fall, the anterior pituitary lobe, no longer held in check by the normal concentration of thyroxine in the circulation, releases T.S.H., producing hyperplasia and hypertrophy, and an increase in vascularity of the thyroid gland. After the conversion of the iodine into diiodotyrosine, two molecules of diiodotyrosine condense to form thyroxine. The thyroxine is then bound to the colloid. When the hormone is liberated from the gland, proteolytic enzymes separate the thyroxine from the colloid, and the thyroxine circulates freely in the blood.

The release of the thyroid-stimulating hormone appears to bear an inverse relationship to the amount of thyroxine reaching the anterior lobe. T.S.H. has at least two actions: (1) it causes hyperplasia of the thyroid tissue (which removes T.S.H. from the circulation), and (2) it augments the release of the stored hormone from the follicle. The retrobulbar fat is believed to absorb T.S.H., and hence it is generally believed that exophthalamus is produced by the changes in the bulk of the fat together with enlargement of the extrinsic eye muscles induced by the thyrotropic hormone. Harrington's work makes it almost certain that the thyroxine itself is the hormone present in the blood stream. The tissues then convert at least a part of the thyroxine to triiodothyronine, liberating one iodide ion, which joins the circulating iodide and is then handled in the way that is indicated in the diagram.

It is important for us to realize that in the absence of thyroid tissue the basal metabolic rate sinks to a very low level but does not become zero. Indeed it has been shown by means of radioactive isotopes of iodide that in the absence of the thyroid tissue, thyroxine can be synthesized in the body. It is now believed that cells in general have the ability to produce thyroxine. But because of specialization and development of cells having differentiated structures and activities, the need for thyroxine is greater than the specialized cells can supply. In consequence, the thyroid gland has, so to speak, taken over the duty of providing the requisite amount of hormone for the cells of the body.

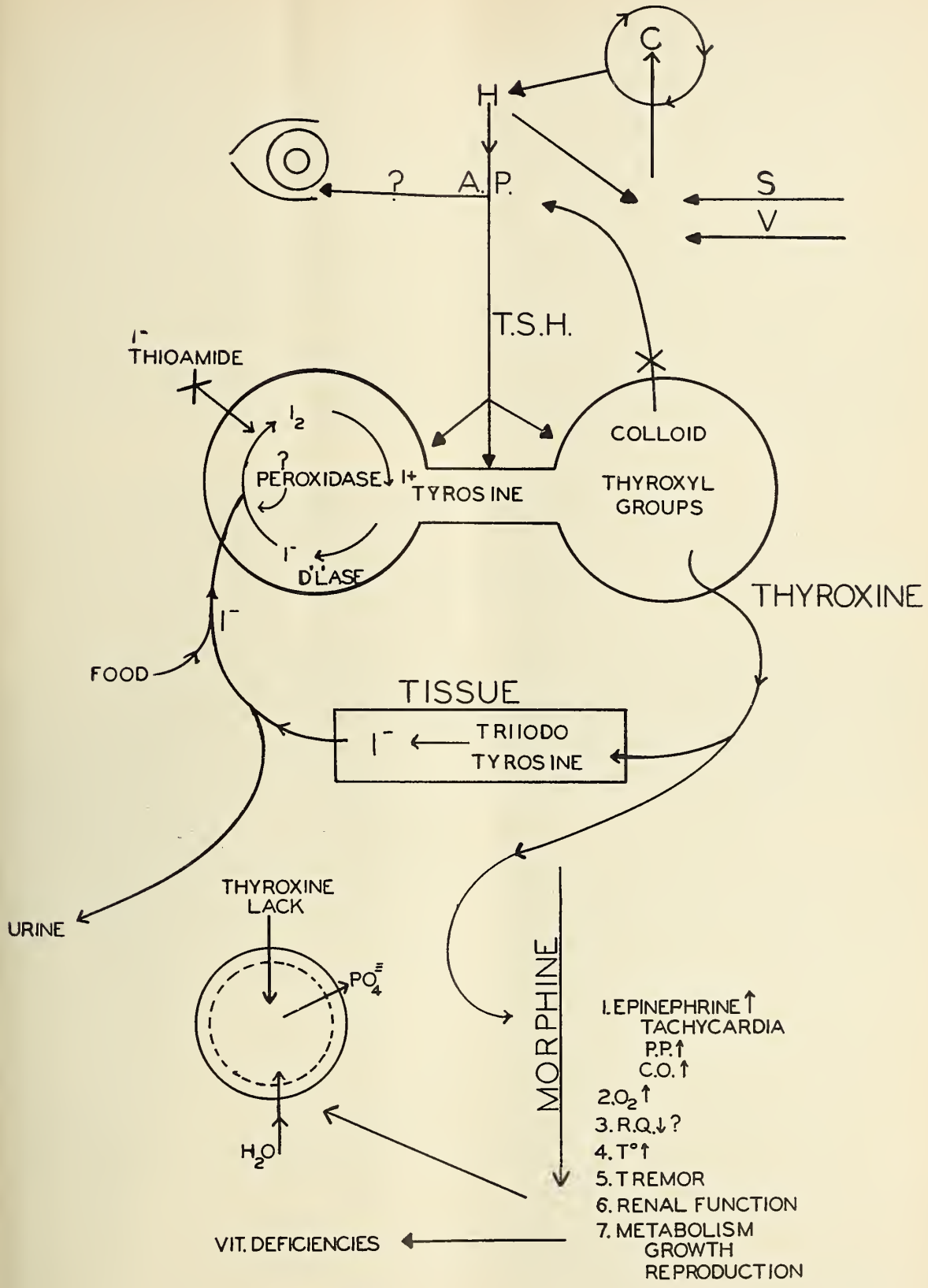
Now, let us look at the bottom right-hand side of the diagram. It is well known that in fever there is usually a drop in the respiratory quotient, and it seems likely that because of the increased rate of heat production in hyperthyroid states, the respiratory quotient will also drop. Strangely enough, however, there appear to have been few, if any, careful determinations of the respiratory quotient in patients with hyperthyroid activity. The muscle tremor, increased tone and increased reflex excitability account, at least in part, for the increase in the rate of heat production, and they are apparently associated with a disturbance in the calcium/phosphorus ratio that may be due not entirely to the thyroid itself, but possibly to the parathyroid in addition.

THYROTOXICOSIS AND "HYPERADRENALISM"

In the condition known as "thyroid storm," it is important to realize that all of these symptoms of epinephrine overactivity can be controlled to some extent by the judicious use of large doses of morphine. Naturally, I must make it clear at once that I do not advocate the use of morphine in the routine treatment of thyroid hyperfunction. Morphine, of course, by reason of its strong cholinergic action on the autonomic system, counteracts somewhat the excessive adrenergic activity seen in such cases. And in a crisis, it may be an exceedingly valuable therapeutic aid. In the hyperthyroid patient, the tolerance for morphine is higher than normal, and the reverse is true in hypothyroidism.

One of the effects of the thyroid hormone which is frequently forgotten concerns renal function. The oxygen consumption, the glomerular filtration rate, the rate of clearance of glucose and tubular activity—all of these are enhanced by the thyroid hormone. In the absence of adequate quantities of thyroid hormone, all of the activities of the kidney are impaired. Possibly this is in part explainable on the basis of the local effect of the thyroid hormone on the renal tubules, which is shown at the left of the portion of the diagram just referred to. In thyroid lack, the rate of cell oxidation falls. In consequence, there is a loss of the mechanism by which a high phosphate and a high potassium level are maintained in the interior of the cell. A part of the phosphate which has been bound in an organic state is broken down to an inorganic state, with a resultant rise in the osmotic pressure within the cell. Naturally, water flows into the cell, and the result is hydremia, which we refer to as the myxedema of the hypothyroid state. In consequence, some phosphate is lost, together with glucose. Thus, the renal tubule becomes boggy and can no longer function normally (see diagram).

In addition to the effects on the rate of oxygen consumption in metabolism, and the effects as regards the activity of epinephrine, there is also a failure of growth and cellular differentiation, espe-


C
H
O
?
A. P.
S
V
T.S.H.
I⁻
THIOAMIDE
I₂
?
PEROXIDASE
I+
TYROSINE
I⁻
D'LASE
COLLOID
THYROXYL
GROUPS
THYROXINE
I⁻
FOOD
TISSUE
I⁻
TRIIODO
TYROSINE
URINE
THYROXINE
LACK
PO₄
H₂O
MORPHINE
1. EPINEPHRINE ↑
TACHYCARDIA
P.P. ↑
C.O. ↑
2. O₂ ↑
3. R.Q. ↓ ?
4. T° ↑
5. TREMOR
6. RENAL FUNCTION
7. METABOLISM
GROWTH
REPRODUCTION
VIT. DEFICIENCIES

cially in the development of secondary sex characteristics. This last-named result can be attributed directly to the absence of thyroid hormone. The other endocrine organs function poorly, so that both the testicular and the ovarian hormones are produced at less than their normal rates. The same is true for the maintenance of pregnancy and for lactation. In the absence of adequate supplies of thyroid hormone, both of these functions may fail.

THE ETIOLOGY OF EXOPHTHALMUS

Turning back to the upper portion of the diagram, we see a drawing of the eye, with an arrow coming from the anterior pituitary lobe and pointing toward it. The arrow is labeled with a question mark. Now it is generally believed that exophthalmus is caused by the production of an excessive amount of material by the anterior pituitary body. Whether or not that material is identical with T.S.H. has not been established. It is important for us to remember that no experimenter has been able to produce exophthalmus with thyroxine alone. In certain animals, the external muscles of the eye are sufficiently developed to contract under the influence of the sympathetic nervous system and so produce exophthalmus. In man, however, this is rarely the case. Occasionally it is seen. You will perhaps recall that some years ago at the Chicago World's Fair, a Negro earned a great deal of money and caused much astonishment by producing exophthalmus at will.

Among several established phenomena yet awaiting an explanation is the fact that the administration of large doses of iodide lowers the basal metabolism rate in thyrotoxicosis. None of the current theories is entirely satisfactory, and all fail to account for the curious finding that in the normal individual, large doses of iodide or thyroid extract (200-300 mg. daily) have no effect at all upon the basal metabolism rate.

Surgery of the Thyroid Gland

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YEARS AGO, IT WAS thought that many of the problems in the treatment of thyroid disease had been solved. At least, the therapeutic tehnics then in use were considered satisfactory. But now we find that new approaches have been discovered and new treatment methods have been evolved—ones that merit our careful study.

HYPERTHYROIDISM

Exophthalmic goiter or primary hyperthyroidism has an etiology different from that of toxic adenoma or secondary hyperthyroidism. It has a definite relationship to extrinsic factors such as the thyrotropic hormone. In this type of hyperthyroidism, the problem is different from that associated with toxic nodular goiter. The former is extrathyroidal in origin and is related directly to systemic influences, whereas the latter is a hyperthyroidism of purely thyroidal origin. In exophthalmic goiter, the factors which precipitated the initial hyperthyroidism may produce a recurrence, regardless of the amount of thyroid tissue present. The incidence of recurrence is as high as 10 to 12 per cent after conservative thyroidectomy, or less than 1 per cent after extremely radical thyroidectomy. It is only by the total ablation of the thyroid gland that the possibility of recurrence can be eliminated.

With the advent of Lugol's solution as a preparatory agent for subtotal thyroidectomy, the surgical management was much simplified. It was observed that the hyperplastic gland possessed a striking affinity for iodine, and that as the acini filled with colloid, hypertrophy and hyperplasia receded. There was an associated reduction of hypermetabolism and a clinical abatement of the systemic manifestations. The surgical approach therefore became less hazardous. Pole ligations were practically eliminated, stage operations were required less often, and the incidence of postoperative thyroid crisis was reduced.

With gland involution and vascular reduction, more accurate surgery could be performed. Gradually, a surgical technic was established which resulted in a progressive reduction in operative mortality, nerve injury, parathyroid deficiency and recurrence of hyperthyroidism. The advantages of thyroidectomy are that it removes the goiter, recovery is prompt and potentialities for malignancy are greatly reduced. Moreover, the sooner the normal metabolic status is established, the greater is the probability that the exophthalmos will recede.

Jackson,[1] in a 20-year follow-up of 100 cases of exophthalmic goiter treated by thyroidectomy, found only one patient who still had the disease. Five had suffered recurrence, but four of those

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five had been operated upon a second time, and one had been successfully treated by means of x-ray. Tinker[2] reported 31 of 39 cases free from disease 14 years after operation. Pemberton,[3] in 1930, reported a recurrence rate of no more than 5 per cent in a series of 878 surgical cases. Lahey,[4] in 1932, reported six recurrences and six cases of persistent hyperthyroidism five or six years postoperatively, out of 100 cases. Cattell,[5] in a follow-up of 381 patients for two years or more, reported a recurrence rate of 2.4 per cent. In a series of 100 cases of exophthalmic goiter five years after subtotal thyroidectomy, we ourselves found eight instances of recurrence and four of persistent hyperthyroidism. Two recurrences were associated with pregnancy, and in one of those cases there was a second recurrence. Four patients retained some degree of hyperthyroidism after operation. Subsequently, in a similar series of patients on whom a more radical operation had been performed, we found only two who had had recurrences.

ANTITHYROID DRUGS

Before the advent of the antithyroid drugs and radioactive iodine, subtotal thyroidectomy was thought to be the best treatment for primary hyperthyroidism. Now, however, the treatment is controversial. There is a place for all three. Each case must be individualized from the point of view of the type of hyperthyroidism, the age of the patient, his marital status and the presence of complications. Antithyroid drugs are rarely suitable for continued administration, or at least that has been our experience. The details of protracted therapy are too demanding, both on the patient and on the physician, and few of either are willing to meet the requirements, especially in view of the fact that permanent remissions are not expected to exceed 50 per cent. Still, when there are conditions that make surgery unsuitable (pregnancy or age, either old or young), one may find it preferable to use antithyroid drugs as therapeutic agents over a prolonged period.

The outstanding contribution by Astwood[6] is related primarily to the reduction of hypermetabolism, and is a means of preparing severe hyperthyroidism for surgery. Antithyroid drugs bridge the gap between partial reduction of hypermetabolism by means of iodine medication, on the one hand, and complete reduction through the use of antithyroid drugs, on the other. Patients who have been adequately prepared by means of antithyroid drugs undergo surgery, not with a relative degree of hypermetabolism but with a metabolism like that of patients who have no hyperthyroidism.

RADIOACTIVE IODINE

Radioactive idoine has made the approach to the treatment of hyperthyroidism even more controversial. If it is to be adopted as the treatment of choice for this disease, it must have some definite advantages that excel those of surgery.

The administration of radioactive iodine does not require hospitalization or surgery. The hyperthyroidism is ordinarily controlled within eight to twelve weeks. Radioactive iodine does not act rapidly, but in severe grades of hyperthyroidism the antithyroid drugs can be used to abate the hyperthyroidism in the interval. Because the radiation has the ability to penetrate no more than two or three millimeters (largely due to the beta rays), there is no damage to the surrounding tissues. The iodine isotope concentrates in the thyroid quite satisfactorily, and other tissues such as the trachea, esophagus, parathyroids and recurrent nerves are unaffected. Since it has a half-life of only eight to ten days, it loses most of its therapeutic effect within a short time, and there is little radiation to be detected after a few weeks. The plasma, bone marrow, kidneys and gonads are not appreciably affected. The body receives far less radiation from radioactive iodine than from an abdominal fluoroscopy and a gastrointestinal x-ray study.

The carcinogenic effect, if any, is limited to the thyroid gland, since radiation elsewhere is negligible. Were cancer to occur in the thyroid following radiation, the indication for surgical removal would be the same as in any nonirradiated thyroid malignancy. A much longer period of observation from this point of view is required, but to date, carcinogenesis has not proved to be a contraindication to radioactive iodine therapy. Dobyns *et al.*[7] found no evidence for carcinoma in thyroid tissue removed eight years after radioactive iodine administration.

At the present time it appears that radioactive iodine may become the standard treatment for Graves' disease in most clinics and large medical centers.

Lerman[8] says that at present radioactive iodine is the preferred treatment for patients whose condition does not warrant surgery. It is the preferable method in the treatment of recurrent hyperthyroidism in patients beyond middle life and in those who refuse surgery for psychological reasons. Some physicians have employed it in all age groups, regardless of marital status, and the reports indicate that it has had no abnormal effect upon subsequent pregnancy or progeny. It should not be given to pregnant women who have passed their first trimester or to lactating mothers, for it is thought that the fetal thyroid may not develop and cretinism may result. Thompson[9] states that except in special cases its administration is inadvisable in toxic adenoma. The adenoma remains and should be treated surgically if the condition of the patient permits.

According to Rawson *et al.*[10] the treatment of cancer of the thyroid by radioactive iodine is lim-

ited, for the cancerous gland possesses less affinity for iodine than does the normal thyroid. As compared with the surrounding normal gland, the tumor tissue concentrates only a small amount of the isotope. Rawson and his associates[10] have reported that in only 5 out of 12 cases was there any thyroid uptake of the isotope, and Ward[11] found that only 3 cases in 10 showed measurable pickup. Metastatic thyroid cancer will concentrate an increased amount of radioactive iodine after the entire thyroid gland has been removed. This concentration of the isotope may be further augmented if, after total thyroidectomy, prolonged treatment by a thiouracil compound is given before radioactive iodine is administered. This is a form of treatment for unremovable metastases.

SOLITARY ADENOMA

The apparently solitary or discrete adenoma of the thyroid is not always a single lesion. Clinically, it appears as a single, discrete tumor, but at operation one frequently finds small adenomas associated with the clinically palpable one. This phenomenon is observed more frequently in nonendemic goitrous areas than in goitrous regions. These are true tumors of the thyroid, but the frequency of malignancy is controversial.

Malignancy in nontoxic nodular goiter, however, has been reported by Cole *et al.*[12] and by Crile and Dempsey[13] to be as high as 17 to 24 per cent; by Lahey and Hare[14] to be 10 per cent; and by Ward[11] to be 16.6 per cent. In children, the frequency is even greater. Kennedy[15] reported 12 cancers of the thyroid in 62 children aged 14 or younger, and Ward[11] found an incidence of 40 per cent in 10 children under 15 years of age. In our series, there were pathologic reports of 11 carcinomas in 100 thyroidectomies for nodular goiter. Eight of them were in patients between the ages of 17 and 29, and the oldest patient was 71 years of age.

Hinton and Lord[16] demonstrated solitary adenomas of the thyroid which appear clinically to be benign are more frequent than are benign-appearing tumors of the breast. They reported a 7.6 per cent frequency of cancer in 194 patients with clinically benign nodular goiter, in contrast with a 6.7 per cent cancer frequency in 75 patients with clinically benign breast lesions. They concluded that all nodular goiters should be removed because of the high incidence of unsuspected cancer.

Graham[17] believes that blood vessel invasion is the most infallible evidence of cancer in an adenoma. Warren[18] states that if venous invasion is the only evidence of malignancy, only 6.3 per cent of the lesions will prove to be malignant.

SURGERY OF THYROID CANCER

The extent of neck dissection which should be undertaken for cancer of the thyroid is controversial. It is agreed that if the capsule of the adenoma is not involved, surgery can be confined to a complete lobectomy of the adenomatous side of the thyroid, with removal of the isthmus and subtotal lobectomy of the opposite side. Under other conditions, or when the tumor is classified as Grade II or higher, radical neck dissection should be performed.

Crile[19] thinks that since most thyroid tumors are of low malignancy and spread only to the cervical lymph nodes, it is unnecessary that one remove the sternomastoid muscle or the ribbon muscles. It is adequate, he believes, to remove all gland-bearing tissue lateral to the thyroid in the tracheoesophageal groove and in the supramediastinal region. Without impairing the chances of effecting a cure, one can defer upper-neck dissection, and perform it only if a necessity for it develops. Black[20] concurs, stating that upper-neck dissection is unnecessary in cancer of the lateral aberrant thyroid. Lahey *et al.*,[14] Cole *et al.*[12] and others advocate more radical surgery, i.e., excision of the jugular vein and the muscular structures.

In 139 cases of papillary adenocarcinoma, Frazell and Foote[21] found 80 cases (58 per cent) with metastatic nodes on admission. King and Pemberton[22] found metastasis to the sternomastoid muscle in 50 per cent, to the posterior triangle in 27 per cent and to the submaxillary triangle in 19 per cent of their cases.

We ourselves do not often remove the muscles in carcinoma of the thyroid, but when neck dissection is performed, we usually remove the internal jugular vein, thus not only blocking venous drainage but affording ourselves a better approach to the glandular tissue behind the carotid sheath.

Postoperative irradiation is indicated when cervical nodes or other evidence of extension is present. We very much doubt its effectiveness as a curative agent.

Beahrs and Judd[23] reported a five-year cure rate of 89.5 per cent for papillary adenocarcinoma. The five-year survival rate for adenocarcinoma in adenoma was 78.3 per cent and for diffuse adenocarcinoma, 10.7 per cent. The squamous-cell type of carcinoma, and sarcoma are usually fatal within a year.

LATERAL ABERRANT THYROID

The lateral aberrant thyroid continues to be controversial as regards its very existence, to say nothing of its relation to malignancy. A failure of the lateral components of thyroid tissue to fuse with the medial components to form the complete gland is said to result in aberrant thyroid tissue.

Pemberton[24] thinks aberrant thyroids are not misplaced thyroid tissue, but are malignant cells from the thyroid gland. Lahey and Ficarra[25] have expressed the opposite view that the original tumor was in the aberrant bodies and metastasized

to the thyroid gland, or that another aberrant nodule was present in the thyroid lobe.

Primary cancer of aberrant thyroid tissue is extremely rare. Usually the primary malignancy is in the thyroid gland.

MULTIPLE NODULAR GOITER (ADENOMATOUS)

Multiple nodular goiter is a degenerative process with areas of involution and attempted regeneration. In our experience, the incidence of cancer has not exceeded 2 per cent. Beahrs *et al.*[26] have reported an incidence of 7.5 per cent in 3,247 operative specimens of adenomatous goiter, and an incidence of 4.8 per cent in nodular goiter. When present, cancer usually appears to be related to a fetal or hidden solitary adenoma.

Fully one half of all multiple nodular goiters eventually are associated with evidence of clinical hyperthyroidism. Clinical observations indicate that cardiac manifestations such as irregularity, fibrillation and decompensation will appear, especially in patients who have no more than limited cardiac capacity. This relationship of chronic hyperthyroidism to cardiac irregularity and decompensation has been emphasized by Hertzler,[27] Lahey,[28] Davison,[29] Ginsberg[30] and others. It has been a common observation with us. We believe that it is the degenerative, nodular, adenomatous goiter of the subclinical type that is the true cardiotoxic goiter. Davison[29] believes that all goiters tend to become fatal, either by carcinoma, thyrotoxicosis or heart failure.

INTRATHORACIC EXTENSIONS

Goitrous masses that protrude through the thoracic aperture down into the chest have certain definite anatomic characteristics which one should keep in mind when he is contemplating the surgical removal of such lesions. Curtis[31] has clearly divided projections through the thoracic aperture into the chest by defining the aperture itself. He describes the plane of the thoracic aperture as an imaginary one extending from the top of the first dorsal vertebra to the superior border of the manubrium and spreading out laterally over the first ribs. Goiters protruding below that plane are classified either as deep cervical, partially intrathoracic or totally intrathoracic.

The deep cervical lesions are those masses having a lower portion which protrudes below that plane. On swallowing, however, the patient can elevate the lowest projections above the plane and render them palpable in the neck. The partially intrathoracic goiter extends into the chest and does not rise into the neck when the patient swallows. Its lower pole, thus, cannot be palpated. Such a protruding mass sometimes becomes fixed against the first rib by means of a deep groove and does not move freely up and down as the patient swallows or breathes. This fixation often causes respiratory difficulty owing to deviation and angulation of the trachea. The totally intrathoracic goiter, one that is completely within the chest, is rare, but it is sometimes found in patients of advanced age.

The anatomic relationship of these intrathoracic lesions is of surgical importance. These protrusions arise from either of the lower poles or from the isthmus of the thyroid gland, and they may be discrete or multiple adenomas, or they may be degenerating cysts. These masses are prevented from enlarging outwardly by the bony structures of the thoracic cage and by muscle attachments. The line of least resistence in their development is through the thoracic aperture and down into the chest. The acts of breathing and swallowing aid materially in directing them in their downward course. As they descend into the chest, they push with them the cervical fascia and mediastinal structures, and carry downward their blood supply from the superior and inferior thyroid arteries. They are therefore surrounded by a well-defined fascial covering and retain their original blood supply from above. These factors are most important for the surgeon to remember when he undertakes the removal of intrathoracic projections.

The position of the trachea and its relation to the goitrous mass are most important. Lateral as well as anterior-posterior roentgenograms shoud be made in order that one may discover this relationship and make sure of the contour of the trachea.

The symptoms are rarely the toxic manifestations seen in cervical nodular goiter. They are largely the result of mechanical factors and relate to the respiratory or vascular structures pressed upon. Pressure usually pushes the trachea to one side and markedly narrows it, producing dyspnea, cough and emphysema. When the trachea or bronchus becomes occluded with mucus, violent efforts at respiration sometimes occur. The trachea may also be markedly flattened by pressure from behind or from the front. Change in body posture may angulate and increase tracheal pressure, causing respiratory difficulty. A narrowed, deviated trachea reduces oxygen intake, necessitating increased cardiac and respiratory effort, and thus adding to the strain put upon a heart that has already been weakened by thyroid disease. A sensation of pressure, a tightness in the chest and a difficulty in swallowing may not be pronounced, however, for even very large growths seem to accommodate themselves without occasioning the patient any considerable discomfort.

It is extremely valuable for one to introduce a catheter into the trachea if the goiter is large and if there is constriction and deviation. Large goiters extracted through a tight outlet may so obstruct the trachea that serious respiratory difficulty de-

velops. With an intratracheal catheter in place, a large intrathoracic goiter can be delivered through the thoracic aperture with little or no respiratory embarrassment.

Tracheal collapse is usually associated with bilateral nerve injury. If the trachea is deviated and soft, collapse is more likely to occur. But even though it is markedly narrowed and deviated, I don't think it will collapse unless there has been bilateral nerve injury. It is generally agreed that when the pressure is released, the caliber and position will soon return to normal.

The operative approach for resection of an intrathoracic goiter is a low collar incision. It is rarely necessary to enlarge the thoracic opening by undertaking any surgical procedures upon the bony structure. It must be remembered that the blood supply originates from above and passes downward into the chest with the descent of the goitrous mass. Hemorrhage is controlled through a ligation of the superior thyroid artery, after which a resection of the cervical thyroid from the trachea and a division of the isthmus will facilitate the subsequent removal of the intrathoracic mass by establishing mobility and greater freedom of manipulation. The inferior thyroid and lateral veins are likewise ligated as they become accessible. Vascularity within the chest is limited, for the mass is surrounded by the cervical fascia and mediastinal structures which have been pushed down as the goiter descended.

The mobilizing approach to an intrathoracic growth is best accomplished by passing one's index finger from behind alongside the mass and freeing it posteriorly, laterally and (ultimately) anteriorly. At the same time, one exerts gentle traction, working to the lowest point of the mass and lifting it out of the thorax, rather than partially freeing it and then attempting to draw it out forcibly. A considerable negative pressure is present which prevents the delivery of the goiter until air has been permitted to pass between the capsule and the goiter. The procedure that I have described markedly elevates the goiter and helps to render it accessible. Forceful traction, on the other hand, may pull upon the adherent bands attached to the side of the goiter, thus increasing its anteroposterior or lateral dimensions and making delivery more difficult or even impossible. Traction or adhesions, moreover, may seriously damage some adherent blood vessel, injure the pleura, produce an angulation or tear into a softened trachea. Contrastingly, the posterior approach affords more freedom of action by providing an entrance through the soft areolar tissue near the tracheal groove. Hemorrhage is not excessive and can be controlled by packing. Small, spurting arteries should be carefully picked up and ligated. The cavity, though large, can almost immediately be obliterated through the shifting of mediastinal structures and lung expansion. Adequate drainage should be established and maintained to prevent accumulation of serum, late infection and mediastinitis. The large goiter mass usually pushes the recurrent nerve well into the groove between the trachea and the esophagus, and rarely injures it if the capsule is carefully dissected and if the tumor mass is gently manipulated. The nerve should be exposed and kept under direct vision during the manipulation and extraction of the goitrous mass.

The removal of large cysts may be facilitated by evacuation of the contents. Gentleness is essential throughout the operation, for it lessens the possibility of deep hemorrhage from adhesions to deep vascular structures and reduces the possibility of tracheal compression, angulation or perforation. After removal of the tumor, the trachea returns to its normal position.

Maintenance of the contour and continuity of the trachea, control of hemorrhage and preservation of the recurrent laryngeal nerve are essential in all thyroid surgery.

Forceful and hurried delivery of the gland into the field of operation may lead to a serious complication. Adequate exposure and anatomic dissection under direct vision are essential if one is to minimize the danger of a surgical tragedy.

SURGICAL TECHNIC

Visualization of the recurrent laryngeal nerve in thyroidectomy is controversial. We believe it is essential, and though we have exposed it routinely in over 1,000 cases, we have had nerve injury in less than 1 per cent. This we can confirm, for we have routinely inspected the vocal cords before and after operation and have records of our observations.

Radical surgery can be more safely carried out if the nerve is exposed. Resection of the gland within the so-called true capsule is not complete assurance of nerve protection, for many abnormal relationships exist. But the nerve is usually not difficult to expose, and since it has a substantial texture, it will not be injured if the approach is gentle. It is not enough to expose it low in the neck; it should also be visualized to the point of entrance into the larynx, where it usually divides. It is at this point that injury most frequently takes place. Nerve exposure in thyroid surgery is as essential as is duct exposure in gallbladder surgery. If one sees the nerve, he will not injure it, and if he exposes it gently, he will not damage it.

The superior poles of the thyroid, the isthmus, the pyramidal lobe (if present) and the deep projecting nodules of the lower pole must be included in an adequate thyroidectomy. Failure in these details can cause a persistence of hyperthyroidism, a recurrence or a cosmetically undesirable result.

The need for tracheotomy following thyroidec-

tomy is by no means always a consequence of nerve injury. Laryngeal edema may embarrass respiration so seriously as to require that the patient make a great physical effort in breathing. Because tracheotomy under such circumstances is a life-saving procedure, it should not be delayed.

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Iowa-Nebraska Medical Assembly

Hotel Chieftain, Council Bluffs
March 22, 1956

A Symposium on Diabetes Mellitus Sponsored by the Pottawattamie County Medical Society

10:00 a.m.-1:00 p.m. Registration and Luncheon

AFTERNOON SESSION

A. L. Nielson, M.D., Moderator

1:00 p.m. Management of the Uncomplicated Diabetic
Robert P. Bradley, M.D., Joslin Clinic, Boston

1:45 p.m. Management of the Pregnant Diabetic
Ralph A. Reis, M.D., professor of obstetrics and gynecology at Northwestern University and editor of OBSTETRICS & GYNECOLOGY

2:30 p.m. Diabetes in Childhood
Robert L. Jackson, M.D., chairman of the Department of Pediatrics at the University of Missouri

3:15 p.m. Coke break

3:30 p.m. Surgery of Diabetes and Diabetic Conditions. Einar W. Johnson, Jr., M.D., of the Department of Orthopedic Surgery at the Mayo Clinic

4:15 p.m. Management of "Brittle" or Complicated Diabetics. Ralph E. Dolkart, M.D., assistant professor of medicine at Northwestern University

5:00 p.m. Cocktails—Clark Drug Company, of Council Bluffs, host

6:15 p.m. Dinner, in the ballroom of the Hotel Chieftain

EVENING SESSION

Eugene B. Flouersch, M.D., Moderator

7:30 p.m. Question and Answer Period
Drs. Bradley, Reis, Jackson, Johnson and Dolkart

This program has been approved for five hours of Category I credit by the American Academy of General Practice.

The Role of Radioiodine in Thyroid Disease

HOWARD B. HUNT, M.D.

OMAHA, NEBRASKA

Radioiodine has become generally accepted as a primary tool for the evaluation of thyroid status and for treatment of hyperthyroidism. Also, it is regarded as a valuable adjunct in the management of the occasional functioning neoplasm of the thyroid. The assimilation, metabolism and excretion of radioiodine can be readily followed by means of the gamma rays emitted beyond the body. Therapeutic depression of thyroid tissue results from the assimilation of iodine almost exclusively by the thyroid and local absorption by the thyroid of all beta and some gamma radiation from the radioiodine.

EVALUATION

The minute quantities used for evaluating thyroid function (25 microcuries) have no demonstrable biologic effect, and even the larger doses (3 to 12 millicuries) used in the treatment of hyperthyroidism have no recognized clinical effect outside the thyroid. The total body irradiation from a diagnostic dose of radioiodine is no more than that from an x-ray survey of the chest, and the total exposure from the treatment of a toxic diffuse goiter is comparable to that received during two complete gastrointestinal examinations made within a month. No effect on reproductive function has been demonstrated, and no carcinoma of the thyroid has been shown to have resulted from radioiodine in any of the many hundreds of patients who have been treated for thyrotoxicosis during the past 10 to 20 years.[1, 2] Radioiodine not assimilated by the thyroid is rapidly excreted through the urine, and that retained by the thyroid loses half of its radioactivity every eight days, emitting no effective radiation after two months. Radioiodine therapy is not ordinarily administered to women who are more than three months pregnant, because of the possibility of its transmission through the placenta to the fetal thyroid. It is worth noting, however, that neither we nor Hodges et al.[3] have observed any abnormalities in infants whose mothers had been given radioiodine therapy relatively late in pregnancy, but we still remain attentive to that possibility. Likewise, we do not give radioiodine to nursing mothers because of its transference by lactation to the baby, as shown in Figure 1.

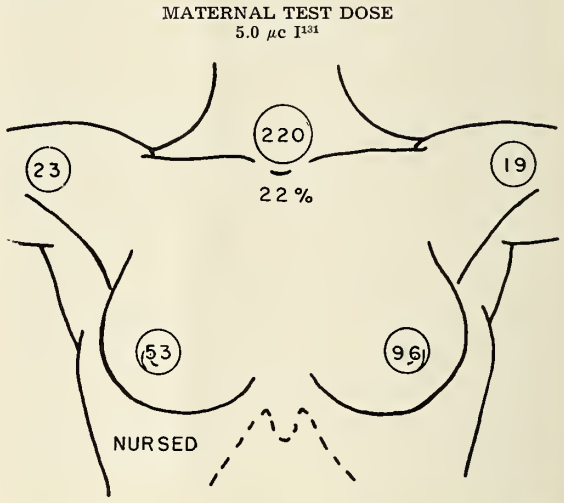


Figure 1. Radioiodine transferred by lactation from mother (note lowered count right breast) to nursing baby (uptake of 110 counts or 11 per cent at 24 hours).

One can evaluate thyroid function by determining the uptake and organic binding of radioiodine by the thyroid, the relative levels of total and protein-bound radioiodine in the blood at 24 hours and the rate of urinary excretion of raioiodine (Figure 2). Because of the essential participation of iodine in the synthesis of thyroid hormone, radioiodine determinations are much more accurate than are BMR readings as indices of thyroid function. The correlation between radioiodine studies and clinical manifestations is just as accurate a guide and introduces fewer technical complications than does serum protein bound iodine. Both tests are invalidated by the prior administration of iodine in any form, of course.

Inasmuch as the trapping of inorganic iodine from the blood and its conversion through organic synthesis into a protein-bound secretion are extremely sensitive indices, any current alterations of thyroidal functions by blood-iodine level, drugs and hormonal effects will be reflected immediately. For example, thyroid function will be depressed by an intake of iodine in any form in amounts greater than 5 to 10 mg. per day,[4] and the cumulative effect of previous iodine saturation may per-

Dr. Howard B. Hunt, the chairman of the Department of Radiology at the University of Nebraska and the director of radioisotope units at University Hospital, V-A Hospital and Nebraska Methodist Hospital, Omaha, read this paper at the Iowa-Nebraska Medical Assembly, in Council Bluffs, March 24, 1955.

sist for ten days to a month or more. The depressing effect of antithyroid drugs such as propylthiouracil and tapazole (methimazole) persists for only one or two days, and discontinuance may be followed by a slight compensatory rise in thyroid activity.[5] Cortisone (75 mg. per day) or ACTH may reduce the uptake of radioiodine by 5 to 75 per cent. Thyroid extract (1 to 2 grains daily) will depress thyroid uptake of radioiodine for 10 to 14 days, more particularly in a patient who has a normal thyroid than in one who is hyperthyroid or hypothyroid. Administering ten units a day of thyroid-stimulating pituitary hormone (TSH) for three days increases the radioiodine uptake by the normal thyroid about 50 per cent or more, but has no significant effect upon the low uptake of the truly hypothyroid gland.[6] We have used this thyroid-stimulation of TSH as a means of differentiating secondary hypothyroidism due to pituitary deficiency (Figure 3) from primary myxedema due to thyroid deficiency. Also, thyrotropin can be used to augment the radioiodine uptake by primary or metastatic thyroidal cancer. It provides a more prompt evaluation of its functional capacity even during the administration of thyroid extract.

Radioiodine indices of thyroid activity show all gradations, from zero to essentially complete utilization of the radioiodine administered as a test dose. The dividing line between normal activity and hypothyroid state, on the one hand, and hyperthyroid state, on the other, are necessarily somewhat arbitrary, and there are overlapping values. The most generally useful index is the percentile retention of a test dose at 24 hours, values between 15 and 45 per cent being considered within the range of normal. Values under 10 per cent are definitely hypothyroid, those over 50 per cent are judged as hyperthyroid and some values go nearly to 100 per cent. The overactive gland takes up iodine as rapidly as 10 to 25 per cent per hour during the first four hours, as compared with 2 to 5 per cent per hour for the normal thyroid. Urinary secretion is conversely low in hyperthyroidism, relatively greater in normal thyroidism and somewhat protracted into the second day in hypothyroidism. Conversion of free iodine into the protein-bound fraction over a period of 24 hours provides an index of the organic binding of iodine in the elaboration of thyroid secretion. In hyperthyroidism, the converted fraction usually ranges from 50 to 90 per cent, and in hypothyroidism from 2 to 10 per cent, with overlapping into the lower normal range. Measurements made directly over the thyroid and adjacent regions compared with body background counts made over the thigh provide a valuable check on the general activity of the thyroid and the relative activity of various nodules, suspected aberrant thyroid tissue and possible functional metastases. The scintigraph provides a more complete graphic pattern of activity, but it is an investigative instrument rather than a necessary clinical tool. It provides a permanent record and permits the charting of changing patterns of activity after thyroidectomy or treatment by radioiodine.

The clinical status and the response of the patient remain the final criteria of thyroid activity, and correlation with radioiodine determinations will be found in well over 90 per cent of cases. Discrepancies usually appear as disproportionately low radioiodine values, which can be accounted for by the unrecognized ingestion of iodine or undetected administration of thyroid extract, cortisone or antithyroid drugs. Iodine may have been administered not only as Lugol's solution, tincture of iodine and potassium iodide, but also as cough medicine, kiophylin, diodoquin, iodex, "vitamin-mineral preparations," and as contrast agents for use in radiography. Whereas agents for excretory urography are excreted within 4 or 5 days and cholecystographic preparations after 7 to 10 days, iodized oils used in myelography and bronchography may depress thyroid function for many weeks. These agents also cause a false elevation of serum protein bound iodine as determined by the usual chemical analysis. Radioiodine assimilation may unexpectedly be depressed by other drugs such as

RADIOIODINE METABOLISM & THYROID FUNCTION

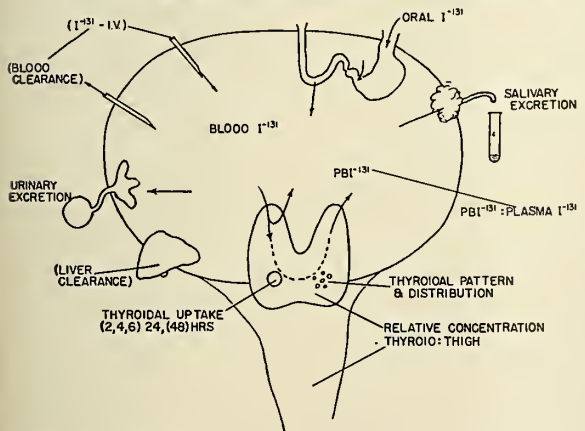


Figure 2. Diagram relating the evaluation of thyroid function to course of radioiodine in the body—thyroid uptake, thyroidal pattern, urinary excretion, salivary excretion, blood clearance and radioiodine PBI conversion studies.

RESPONSE OF SECONDARY HYPOTHYROIDISM TO TSH
I^{131} Retention at 24 Hours

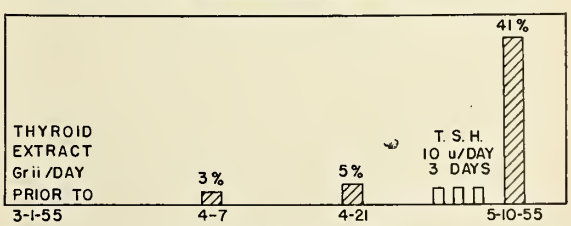


Figure 3. Hypothyroidism proved secondary to pituitary disorder by response to TSH, shown by increase of thyroidal uptake in a particular patient (Mrs. I. J.-VA) from 5 to 41 per cent at 24 hours.

para-amino salicylic acid (used in the treatment of tuberculosis), thiocyanate (occasionally used in the treatment of hypertension) and various sulpha compounds. It must be remembered that the clinical thyroid state is an expression of accumulated thyroid hormone level, whereas radioiodine determinations are indices of current functional activities of the thyroid at the time of examination. The individual sensitivity of patients to given thyroid hormone levels may vary, the threshold being relatively low in patients with toxic nodular goiter who have suffered from low-grade hyperthyroidism over a period of many years. Even though the total activity of the thyroid is only relatively elevated, the demonstration of a significantly "hot nodule" warrants treatment.

In the light of our experience in the evaluation of some 2,500 patients suspected of thyroidal disease, we feel that the total uptake at 24 hours and the pattern uptakes over the thyroid provide adequate and reliable data in about 95 per cent of patients. In some cases, reexamination after 10 to 14 days may be indicated, whereas in others, urinary excretion studies and protein-bound radioiodine conversion ratios may be helpful. Pattern uptake studies at 3, 6 and 24 hours are indicated whenever carcinoma of the thyroid is clinically considered. According to Corrigan and Heyden,[7] the carcinomatous area may show initial pickup at 3 and 6 hours, with some relative release at 24 hours (Figure 5). In our experience, the recognition of such a chronologic pattern seems to warrant biopsy for microscopic evaluation of cancer.

TREATMENT

The selection of patients with thyroid disease favorable for treatment by radioiodine requires discerning clinical judgment based upon a reliable diagnosis and upon the weighing of the relative advantages of medical management, subtotal thyroidectomy and radioiodine therapy. Generally speaking, all inherent hyperthyroid states are amenable to control by radioiodine therapy, but radioiodine is the treatment of choice only in cases which meet the following general specifications. First, a precise diagnosis of thyrotoxicosis must be established. Second, the disorder must promise significant benefit from the permanent lowering of thyroid activity to a normal or subnormal range. Third, any reasonable probability of thyroidal cancer must have been excluded. Fourth, hazards of biologic injury should be minimized by the exclusion of pregnant women and nursing mothers and by avoidance of children and young people in whom long-range effects are debatable and unproved. Fifth, radioiodine therapy should offer a remission comparable with that from subtotal thyriodectomy, and with less prospect of residual disability or morbidity and less hazard.[8]

Medical management is of definite value whenever one is seeking a supplement for radioiodine therapy or whenever a temporary lowering of thyroid activity seems preferable to a permanent one. A trial of medical management is indicated in all indeterminate and borderline cases, but one must bear in mind that radioiodine offers no symptomatic improvement beyond that attained by full medical therapy. It merely produces a more permanent effect. Intermediate cases showing no benefit from good medical management are rarely toxic and are not candidates for radioiodine therapy. A trial of medical management seems preferable in young patients who show a mild thyrotoxicosis of short duration as a result of psychic strain.[9] If symptoms recur after discontinuance of medical management, a more permanent lowering of thyroid activity by radioiodine or subtotal thyroidectomy warrants consideration. Patients who are intolerant of iodine or antithyroid drugs based on edema, dermatitis or agranulocytosis, but who have shown satisfactory remission under such therapy, are good candidates for radioiodine. The total amount of iodine is so minimal (no more than 1/1,000 mg.) that no reaction is to be feared, even though the patient is allergic to iodine. Management by antithyroid drugs supplementary or preliminary to radioiodine therapy is particularly important in thyrocardiacs and in patients showing severe thyrotoxicosis. Thyroid crisis must be treated medically.

Subtotal thyroidectomy is preferable to radioiodine therapy whenever histologic evaluation of the thyroid is indicated for exclusion of possible cancer or for relief of mechanical compression, and it is likewise preferable in the treatment of youngsters and of pregnant or lactating women whenever there is real concern about the possibility of biologic injury. We feel that microscopic evaluation for cancer is indicated in all goiters in children (except for goiterous cretins), and in all goiters showing a predominant nodule with progressive growth, especially in patients under 45 years of age. Corrigan[7] says that a radioiodine uptake pattern showing maximal concentration over a nodule at 6 hours, with a relative fall-off of activity at 24 hours, warrants histologic examination for exclusion of cancer. Since about 50 per cent of goiters in children are cancerous, nearly all are operated upon and subjected to microscopic examination. Since non-toxic goiters have a high incidence of carcinoma and do not take up radioiodine, subtotal thyroidectomy is precautionary. Goiters causing complaints of either mechanical compression of the trachea or esophagus, or of disfigurement should be surgically resected, since radioiodine is relatively ineffective in the shrinking of such tumors.

In general, surgical statistics grossly exaggerate the incidence of carcinoma in nodular goiter, since cases referred for surgery have already been high-

ly selected by general physicians and internists. Cattell[10] reports that at the Lahey Clinic 10.2 per cent of non-toxic nodular goiters and 1.8 per cent of toxic nodular goiters operated upon showed cancer, over half of the cancers occurring in patients under 45 years of age. After an extensive review of the American literature, Sokal[11] has stated that the cumulative risk of the development of cancer in a thyroid nodule is not over 1 per cent during a lifetime. A high index of suspicion for thyroidal cancer must be maintained at all times, even though the disease affects less than 0.1 per cent of the population and though no more than 5 to 10 per cent of the population ever have nodular thyroids.

Satisfactory response of thyrotoxicosis to radioiodine therapy depends primarily upon the proper selection of cases for treatment and upon the adjustment of dosage to the requirements of the individual patient. Remission should be satisfactory in about 90 per cent of properly selected cases. Thus, one admits the possibility of recurrence in about 10 per cent, and of significant hypothyroidism in 5 to 10 per cent. The acceptance of patients with borderline or indeterminate thyrotoxicosis, and the inclusion of patients with predominantly psychogenic disorders and cardiacs with rheumatic and arteriosclerotic disease will significantly reduce the percentage of satisfactory and symptom-free remissions. Complaints due to psychogenic disorders, primary cardiac disease and various other extrathyroidal ailments will necessarily persist, even though the thyroid difficulty has been somewhat ameliorated. One must follow all patients carefully, bearing in mind the possibility of recurrent hyperthyroidism as well as of hypothyroidism. Patients developing such complaints must be made aware of their condition and must be treated appropriately if optimum health is to be maintained. All patients should be informed that 10 to 12 weeks must elapse before the full effect of one therapeutic dose can be observed.

Patients are accepted for treatment of hyperthyroidism by radioiodine only after the diagnosis of thyrotoxicosis has been firmly established and after the possibilities of carcinoma and pregnancy have been reasonably excluded. There is still some hesitancy in the unrestricted therapeutic use of radioiodine in younger people because of possible, even though debatable and unproved long-range carcinogenic and genetic effects. The following individuals are considered generally acceptable candidates for radioiodine therapy: (1) the inoperable thyrotoxic patient, (2) the postoperative recurrent thyrotoxic and (3) the patient over 40 years of age who has a diffuse, toxic goiter.

Next in order of acceptability are (1) the patient between 20 and 40 years of age who has a diffuse, toxic goiter, (2) the patient beyond 45 years of age who has a definitely toxic, multinodular goiter and (3) a selected euthyroid patient who has cardiac decompensation or angina.

Cardiac patients of two general categories may benefit from a lowering of thyroid activity. The thyrocardiac patient with a history of thyrotoxicosis or nodular goiter of some years' duration often develops auricular fibrillation and impending cardiac decompensation. Such an individual is frequently restored to normal rhythm and is relieved of dyspnea through the lowering of thyroid activity to normal range by means of radioiodine. Other euthyroid patients suffering from decompensation or angina based on arteriosclerosis, rheumatic fever or some other extrathyroidal cardiac damage may show a relative improvement from radioiodine when they have been made hypothyroid or myxedematous. One can reduce cardiac load by rendering the patient hypothyroid, thus lowering metabolic activity, reducing the circulatory rate and lessening the cardiovascular reaction to stress. It must be certain, however, that such patients present sufficient promise of cardiac reserve to assure their living for at least six months in order to regain compensation under such a relative lowering of circulatory demands. In general, only 50 to 60 per cent of such patients will show satisfactory relief of symptoms, and some may die before the radioiodine becomes effective. All patients so treated must accept the disturbing symptoms of hypothyroidism and even myxedema such as increased irritability, rheumatoid pains and some general sluggishness. But if those symptoms are intolerable, they can be regulated by appropriate dosages of thyroid extract.

The length of time required for radioiodine to correct thyrotoxic states varies widely, depending upon the morphologic and functional characteristics of the thyroid lesion and upon the size of dose and the intervals of therapy. The biologic effect results entirely from the cellular disintegration and suppression of function produced by the absorbed radiation. Since it is taken up by the cells in proportion to their secretory activity, radioiodine exerts its effect primarily on the most overactive tissue of the gland. The full effects of any given dose in the suppression of thyroid activity is attained only after 8 to 12 weeks. The small, compact gland of a diffuse toxic goiter is more homogeneously and effectively irradiated than is the large nodular goiter with its scattered active foci separated by inert tissue. A relatively smaller dosage per gram of tissue and fewer administrations of radioiodine are therefore required for control of diffuse toxic goiter, and the incidence of hypothyroidism is much greater.

In our experience with the treatment of 375 patients with diffuse toxic goiter and 114 with toxic nodular goiter, about 65 per cent of diffuse toxic goiters were controlled by a single dose, whereas

only 40 per cent of toxic nodular goiters responded to such a treatment. Total dosage required for control of diffuse toxic goiter has varied from 3 to 16 millicuries, and for toxic nodular goiter from 4 to 54 millicuries. The average period required for complete remission in toxic diffuse goiter was 10 weeks, and that required for complete remission in toxic nodular goiter was definitely longer, probably because of a combination of inadequate initial dosage and the progressive activation of previously quiescent thyroid tissue (Figure 4). The higher the initial dose per gram of gland, the quicker the remission, but the higher the incidence of hypothyroidism (Gordon[12] and Scott[13]).

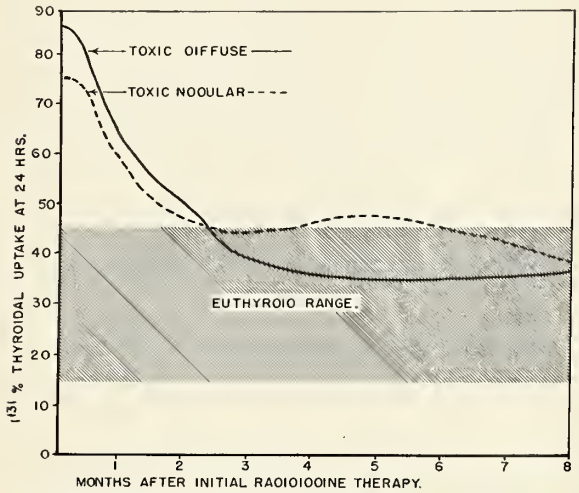


Figure 4. Mean chronologic response of toxic diffuse goiter and toxic nodular goiter to radioiodine therapy.

Estimation of radioiodine dosage required for the individual patient is based upon (1) the relative compactness versus the nodularity of the gland, (2) the total weight of the gland, and (3) the total percentile retention of radioiodine by the thyroid at 24 hours and again after 14 days. If there is excessive loss of radioiodine between the first and the fourteenth day, a supplementary dose is given at 14 days. Accelerated loss occurs most frequently in highly toxic patients and in patients who are simultaneously receiving treatments of antithyroid drugs or iodine. Dosage requirements tend to be somewhat higher in older patients with disease of long duration, in highly toxic patients and in thyrocardiacs. Patients with severe thyrotoxicosis and cardiac complications are often treated initially and concurrently with tapazole or propylthiouracil, but not with iodine, in order that they may gain a more prompt remission through medication while they are waiting for the radioiodine to become fully effective. The patient in thyroid crisis or with a pulse rate above 140 or with fever should be treated initially by intensive antithyroid medication, as advocated by Bartels,[14] and brought into some relative remission before one proceeds with intensive radioiodine therapy. In such cases one should administer radioiodine in fractionated doses spaced about a week apart, omitting antithyroid medication on the day immediately preceding each dose of radioiodine. Euthyroid cardiacs usually require four doses of 6,000 to 8,000 microcuries spaced at intervals of about 5 days.

RADIOTHERAPY IN CARCINOMA OF THE THYROID

Carcinoma of the thyroid is a relatively rare disease having a total incidence of only about 1 per 40,000 population and accounting for less than 0.1 per cent of deaths.[15] A histologic diagnosis of carcinoma of the thyroid should be reviewed, the basis for malignancy should be verified and the extent of disease should be established. If the lesion has been completely encompassed by surgical resection, no treatment by radiotherapy is warranted.

Carcinomas of the thyroid may be grouped under four general types: papillary, alveolofollicular, compact follicular and undifferentiated. The papillary carcinoma seems to arise in congenital arrests, it is commonest in youngsters, and it is characterized by slow growth, by metastases to the regional cervical nodes and by a course extending from 5 to 25 years. Papillary carcinoma can often be effectively controlled by wide or repeated surgical removal, followed by roentgen therapy when it has been found to be invasive or metastatic. The alveolofollicular carcinoma simulates functioning thyroid tissue in its histology and shows significant concentration of radioiodine by counter, although it constitutes only about 10 per cent of all thyroidal cancer. It shows relatively slow growth, but frequently metastasizes by means of the blood stream to bones and lungs, under which circumstances it is suitable for radioiodine therapy. Such metastases from alveolofollicular carcinoma may be restrained or resolved for a period of years by radioiodine and roentgen therapy, but it rarely can be fully eradicated. The avidity of such alveolofollicular and alveolopapillary lesions for radioiodine can be augmented by total thyroidectomy and by the prior administration of TSH, with the effectiveness of radioiodine thereby enhanced.[16]

Radioiodine has no place in the treatment of true papillary, compact follicular or undifferentiated carcinomas. Undifferentiated carcinomas usually occur in elderly people, metastasize widely through the blood stream and usually are rapidly fatal. Hurthle-cell tumors, a type of compact follicular lesion, arise in encapsulated adenomas, they become invasive in some cases and they may metastasize widely, although they usually run a somewhat prolonged course.[17] Locally persistent or recurrent lesions may occasionally be restrained by intensive roentgen therapy and local implantation of radium or radiocobalt needles.

The best treatment for carcinoma of the thyroid

is complete surgical removal of the primary lesion, together with its local extensions and regional metastases. Radiotherapy serves in the treatment of non-resectable disease, stray cancer cells and metastases. The utilizable radiotherapeutic agents include roentgen rays, radioiodine and interstitial radium or radiocobalt. External roentgen therapy is most useful in the treatment of metastases and postoperative residual carcinoma. Interstitial radiotherapy is restricted to residual or recurrent disease that is limited to the thyroid area. Radioiodine is useful only in the residual and metastatic functioning alveolofollicular carcinoma, and is most effective in combination with intensive roentgen therapy. Radiotherapy is inappropriate whenever the surgeon is reasonably confident that the carcinoma has been completely removed and when microscopic examination has shown it to have been well encapsulated or of debatable malignancy.

SUMMARY

1. In our experience over a period of eight years, radioiodine has proved safe and effective in the evaluation of thyroidal status in over 2,500 cases, and in the treatment of 485 patients with thyrotoxicosis.

2. Thyroidal activity is most satisfactorily evaluated by determinations of the 24-hour percentile uptake and of the local pattern of radioactivity in the thyroid. Urinary excretion, protein-bound radioiodine conversion values, salivary secretion levels and scintigrams have been evaluated.

3. Nursing mothers have been shown to lactate radioiodine and to transmit it to the thyroid of their nurslings.

4. In the selection of patients for treatment of thyrotoxicosis by radioiodine, it is most important that the diagnosis be firmly established, that the possibilities of carcinoma and pregnancy be excluded and that the possible long-range biologic hazards be minimized by exclusion of children and young adults.

5. Treatment by radioiodine is most suitable in patients with inoperable and postoperatively recurrent thyrotoxicosis, in patients with diffuse toxic goiter and in selected patients past 45 years of age with toxic multinodular goiter.

6. Properly selected patients with thyrotoxicosis show satisfactory remission in over 90 per cent of cases.

7. Diffuse toxic goiters require about 90 microcuries retained per gram, and toxic nodular goiters about 150 microcuries retained per gram, with supplementary dosage after two weeks only if excessive loss of radioiodine from the gland has occurred during the interval.

8. Thyroid crisis and severe thyrocardiac states warrant intensive initial medical management, followed by fractionated radioiodine therapy when relative remission has occurred.

9. Euthyroid cardiac patients troubled by decompensation and angina will benefit from a reduction of circulatory load through induction of hyperthyroidism by radioiodine in the majority of selected cases.

10. Pituitary thyrotropin has proved valuable to us in differentiating primary thyroidal from secondary pituitary hypothyroidism and in augmenting the uptake of radioiodine by functioning carcinoma of the thyroid.

11. Carcinoma of the thyroid is advantageously treated by radioiodine only in the case of a functioning alveolofollicular lesion, metastatic or residual following adequate surgery. The radioiodine should then be combined with conventional radiotherapy.

I^{131} ASSIMILATION
Alveolar Cancer of Thyroid Metastatic to Pelvis

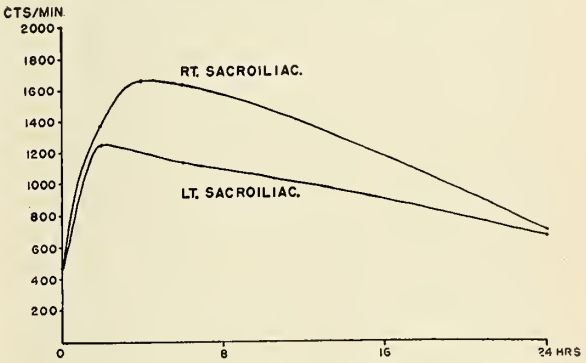


Figure 5. Alveolofollicular carcinoma metastatic to right sacroiliac region, showing relative concentration of radioiodine at 4-8 hours with some fall-off at 24 hours.

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A Quarter Century of Transurethral Prostatic Resections

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AFTER A QUARTER CENTURY of transurethral prostatic resections, it seems timely that urologists should reminisce a little about the origin of this surgery and review basic factors that have seemed to mean most in producing satisfactory results. For the experienced urologist, there will be nothing new in the ensuing discussion, but I hope that younger men, struggling with their first few hundred resections, will find some comfort and possibly some help in the suggestions and observations that they find in it. Indeed, the problems that those younger men have asked about are the ones that prompted me to write this paper.

It was my good fortune to start my residency in urology under the late Dr. Nathaniel G. Alcock at Iowa City in July, 1931. At that time, Dr. Alcock had just returned from a visit with Dr. T. M. Davis, of Charlotte, North Carolina, who you will remember was the first to use resection routinely. Up to that time, Dr. Davis had not been particularly successful in convincing other surgeons of the merits of the new procedure.

Those of us who worked with Dr. Alcock during the next four or five years saw him develop a large series of resections, draw scrupulously honest conclusions, debate endlessly with critics and establish certain of the technics and routines that still are in use today. Watching his untiring and dynamic work in those years, I felt that he was the man who catalyzed the intense activity in prostatic resection which then developed and which eventually made the Middle West the resection center that it now is. Keyes, Collings, Stern, Young, Kirwin, Bumpus, Thompson, Davis and McCarthy participated in the development of the resectoscope. In the Middle West, Alcock, Bumpus, Nesbit and Thompson were leaders in using resection routinely on prostatic cases. There were many other men, but it is they whom I particularly remember as visiting back and forth, sharing information and standing together against the early critics.

Dr. Hicks read this paper at the annual meeting of the North Central Branch of the American Urological Association, in Chicago on September 27, 1955.

Those of you who have entered urology since World War II missed an interesting ten years from 1931 to 1941. Many changes were made, and many problems were solved during those formative years. The original closed sheath with fenestrated opening was discarded in 1932 for the McCarthy open-end sheath. Early cutting machines were not very effective, and the efficiency of the cutting current varied markedly, even in the course of a single resection. Loops were much thicker. Lens systems gave less vision. Explosions in the bladder startled the surgeon. Electric currents burned his fingers through his rubber gloves. But cutting machines were improved, skill and experience were built up, and "miracle" drugs made their appearance. Dr. Foley gave us the bag catheter, and soon mortality rates began dropping steadily.

The skill and experience of the surgeon have greater importance than any other factor or factors in determining morbidity, complications and mortality nowadays, and postgraduate training is most important in providing him that skill and experience. The more resections the resident sees demonstrated and the more he performs, the better start he will make in private practice. A young urologist recently told me that he had performed 15 resections during his residency. If the number demonstrated to him were equally inadequate, he is not prepared to compete with the average resectionist. This surgeon will be disappointed in his early results and tend to rely more and more on open surgery.

Some authorities have intimated that resections should be limited to the small prostates and the chronically infected fibrotic glands, bars and malignancies. Excepting the malignancies, these are the types of pathology in which resections, as well as open surgery, give the poorest results, because of contracture. It is in these types of pathology, however, that resection is the operation of choice. The best results are obtained on glands from 50 to 100 Gm. in size, although even in such cases results will be disappointing until the surgeon has gained considerable experience and skill.

With proper training and with a determination to remove tissue thoroughly, the surgeon will acquire dexterity, and the percentage of his two-stage resections will gradually decrease.

Authorities say that a completely trained urologist should perform the type of prostatic surgery that is best fitted to the patient's particular condition. A question could be raised here as to whether all urologists have the practice or the facilities for becoming equally skilled in all types of prostatic surgery. With allowances for unusual pathology, there might also be good reasons for saying that each surgeon should perform that type of surgery *for which he is best fitted.* Montaigne said many years ago, "One can become learned from others' learning, but wise only from one's own wisdom." Heeding that advice, the surgeon would be wise to follow the course that his own experience indicates is best for his patient.

TECHNIC

Median lobes are easy. Intravesical lateral lobes are also easy to do. Intraurethral lobes are more of a problem and must be scooped out deeply. Some laterals and median lobes push beneath the trigone, and the finished effect with them is a "waterfall" resection, with the urine pouring down into the posterior urethra and then out. These are the cases in which caution must be used in the passage of instruments, or one may end up beneath the bladder.

The initial step is to remove the median lobe and tissue about the internal urethral orifice. My practice is then to remove the lower half of each lateral lobe, and afterward the upper half of the laterals. In the presence of definite hyperplastic lateral lobes, straight lateral walls at the end of the resection indicate inadequate removal of tissue. A concave wall should be present, and the larger the lobes, the deeper the concavity. An early error of embryonic resectionists is that of leaving the edges of the lateral lobes touching over the urethral floor. Laterals must be pried apart and these inferior edges scooped out, for here in the five and seven o'clock positions most of the prostatic calculi and much of the chronic infection are found. Fortunately, in the four-to-five and in the seven-to-eight o'clock positions one is less apt to cut through the capsule or into a venous sinus because here the lateral lobes are thickest.

Overhang of tissue above and about the sphincter is another common finding in inadequate resections. Setting the loop against this tissue and cutting away from the sphincter will often clear it when it cannot be safely engaged by cutting towards the sphincter in the conventional manner. Tissue may be trimmed from about the sphincter in this manner as a final stage of the operation, so that a thin edge of prostatic mucosa is left at the membranous urethra.

Some have asked about the desired contour of a completed resection. If the surgeon follows the hyperplastic tissue, the contour will take care of itself. To have confidence to cut rapidly and deeply, one must be able to recognize all types of hyperplastic and malignant prostatic tissue. Small pieces of tissue are the marks of the new resectionist, and although they represent an unavoidable stage in his acquiring experience, he should not remain in that stage very long. The larger the bites, the fewer pieces needed for a result, the faster the operation, the fewer times the sheath is moved back and forth along the urethra, and thus the less trauma to the mucosa.

Experience is the greatest factor in transurethral surgery. Ordinarily a surgeon needs to perform 500 to 800 resections in order to achieve maximum skill. My feeling is that if one aims to "channel out" the average prostate, he will never develop much skill at resections nor be completely satisfied with his results. One should start with the aim of learning to get all but a thin shell of the prostatic hyperplasia, for if he starts with that objective he will eventually come close to achieving that goal. All factors being equal, the inadequately resected patient has more chance of early recurrence of symptoms, will carry infection longer, will tend to have intermittent hematuria and, in general, will be more symptomatic.

Judgment is a factor in good results. Transurethral prostatic resections of over an hour in length tend to increase all hazards. Prolonging a resection after the membranous urethra has become tight may cause later contracture. Thus the ability to do a resection quickly is a definite advantage. A tight anterior urethra is almost certain to give some degree of stricture later on. A tight meatus should always be incised over a sound until the fibrous band gives way completely. The postoperative use of large draining catheters may cause stasis along the urethra, and thus may produce strictures or even peri-urethral abscesses. With careful hemorrhage control, there is no reason for the use of a postresection catheter larger than size No. 22, and occasionally even smaller sizes are advisable.

No one apparently has an answer to the complication of bladder-neck contracture in prostatic bar resections. In my experience, cutting back the bladder neck more widely than usual increases the formation of constricting scar. Careful control of infection before and after resection is important. Fulguration of bleeding should be of the pinpoint type. Occasionally, a single groove at the six o'clock position will give permanent relief with no contracture problem.

HEMORRHAGE

Hemorrhage originally was considered a hazard and one of the disadvantages of resection. Certainly hemorrhage can be a nuisance, but it is

not to be thought very serious. Urologists have developed long series of resections without ever having to resort to suprapubic surgery and packing for the control of bleeding. Occasionally, a patient will return to the hospital with a bladder full of clots from latent hemorrhage. Evacuation of those clots and control of hemorrhage do not constitute a complicated procedure, and we have never lost a patient from that type of complication. We give each of our patients a detailed sheet of instructions as to postresection complications, and if clots form, the patient is advised to start back to the hospital for an immediate check-up. Large institutions whose patients come from great distances have a greater problem in this respect.

Though hemorrhage at the time of operation can be annoying and tends to slow the procedure considerably, it needs not get out of hand. On several occasions when large venous sinuses have been opened, sudden bleeding has obscured the whole posterior urethra. In each case a Foley bag catheter was inserted, and when moderate traction was applied for several minutes the hemorrhage stopped completely. Other urologists report similar experiences. If one wishes to see where sinus bleeding is coming from, filling the bladder snugly with the irrigating solution will cause reflux into the opened sinus and thus give excellent vision. Bag traction seems safer than the fulguration of this area under such conditions. Traction in other types of bleeding does not seem effective. In very large resections, heavy traction may pull a bag catheter into the posterior urethra, and unless it is corrected, traction divulsion of the sphincter will occur.

Dr. Robin Flocks' excellent article on the blood supply of the prostate* answered the question as to where to look for severe arterial bleeding along the four-to-five and seven-to-eight o'clock positions of the bladder neck.

It might be well for me to mention here that our practice is never to put more than 20 cc. in a 30 cc. Foley bag catheter. If the patient pulls out the indwelling catheter, a loose 20 cc. bag does less damage than does a tight 30 cc. bag, and the sphincter may be saved.

Keeping up the blood pressure during resection is important in diminishing reflux into vessels, and in increasing the efficiency of the hemostasis. If the blood pressure is normal and if irrigations clear at the end of a resection, the chances of postresection bleeding problems are greatly lessened. Returning the patient to his room with a low blood pressure and a tinted irrigation increases the chances for trouble. The low spinal is still our choice of anesthesias, and we exercise great care to prevent fluctuations in blood pressure.

We feel sure that in our experience hemorrhage has not been a very serious hazard in transurethral resections—certainly no more so than in any other type of prostatic surgery.

Dr. C. D. Creevy pioneered some timely investigations about the dangers of venous reflux with resultant hemolysis and its complications. Operating upon patients with reduced bladder capacities, cutting too long without emptying the bladder, not keeping bleeding well controlled, working with a low blood pressure and gross prolongation of operating time probably are other contributing causes. My conclusions would be that technic and skill play a very important part in preventing such a complication.

POSTOPERATIVE CARE

Obviously, postoperative problems are much less troublesome now than they were 25 years ago. Most of us wait two full days before removing the indwelling catheter, but in patients with bars, tight urethras, secondary resections and vesical spasms, catheters can be removed earlier if one is sure that an adequate resection has been performed and that vesical tone is good. Occasionally, when a small prostatic bar has been simply cut down from the five to the seven o'clock position, no catheter has been used and there have been no ill effects.

Originally, following the removal of the indwelling catheter, each patient was irrigated daily and the residual was recorded. Now, no catheterization is needed if the patient voids freely. If he voids with questionable efficiency, a residual check should be made within 12 hours. The 12-hour time is noted because a large postresection residual usually initiates a severe and oftentimes prolonged febrile reaction in about 24 hours. If one is certain of the adequacy of the resection that has been performed, initial difficulty will respond to Sitz baths, forced fluids and urinary antiseptics.

A patient who has had a large residual prior to surgery and is unable to void afterward is treated by means of an indwelling catheter for two weeks. Our practice is to send the patient home with a clamp on the catheter, and almost always when he returns in two weeks for a check-up, the tone has returned. The above statement is, of course, predicated upon one's being sure that a good resection was done. It is better still to treat vesical atony before surgery, and our patients often wear a catheter at home for two weeks before hospitalization. Such patients are, as a rule, less reactive to surgery.

A beginning resectionist is certain to have difficulty competing in practice with an accomplished one. It would thus be advisable for the beginner to take no chances on sending patients home with questionable results. It is far better for him to check such patients with the panendoscope on the fifth postoperative day, and if indicated, he should do a secondary resection at the same time.

* Flocks, R. H.: Arterial distribution within prostate gland. J. Urol., 37:524-548, (April) 1937.

PRERESECTION VASECTOMY

Over the years, postresection epididymitis has been equally annoying in open and in transurethral prostatic surgery. About 15 per cent of my resections developed this complication. Vasoligation did not answer the problem. The more nearly complete the prostate removal, the more often epididymitis seemed to occur. Finally, in 1948, when preresection bilateral vasectomies were started routinely, the cases of epididymitis dropped to between one and two per cent. Peculiarly, the mortality rate dropped at the same time, a coincidence for which I have no explanation to offer. Earlier, we avoided doing vasectomies upon deformed or traumatized testes or cords. Now, we include these also—if we can find a vas—for such testes seem even more likely to develop infection. There is a prevalent idea that vasectomy should not be done on patients who have had preliminary catheterization or indwelling catheters, but our experience has failed to justify that notion.

We realize that bilateral vasectomy sterilizes patients, but a good resection sterilizes them just as completely. In our experience there has been great benefit in eliminating an acutely disabling and exquisitely painful complication—great benefit both in reducing morbidity and in preventing expensive hospitalization. We now consider bilateral vasectomy a part of our transurethral resection.

MORTALITY

Mortality rates vary greatly. Mark Twain once said, "There are lies, there are damn lies and there are statistics." Actually, it seems that no one uses the same set of rules in figuring mortality rates. Dr. Alcock asked simply, "Did the patient go home alive or dead?" The answers to that question, it would seem, provide the only fair basis for such sets of figures. Urologists dealing with private patients from the upper strata of society should do better than urologists dealing with institutional and charity cases. After gaining sufficient experience, one should get pretty close to a one per cent mortality rate in private practice. Among aged, senile patients one cannot avoid an occasional death from complications such as vascular accidents, but death from technical errors should be very rare.

SUMMARY

This article was written from observation and experience gained during approximately 3,000 transurethral prostatic resections. The conclusions reached are completely personal and have evolved since the origin of this surgery. It is hoped the younger resectionists may herein find a few answers to some of their resection problems.

Emergency Medical Service in a Disaster

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Emergency medical service is a type of medical practice that is receiving increased attention from doctors. In the past, the average practitioner has not given it much consideration, and he has rationalized his neglect by assuming that if the problem should arise, he would simply go to work and do his best. But natural and man-made disasters are, unfortunately, ineradicable parts of modern living, and if they are to be met efficiently and effectively, plans for combatting them must be made in advance.

Plans must be made for proper reception and registration of casualties, for skillful and rapid diagnosis of injuries, for the utilization of recognized procedures and for the formation of teams of skilled auxiliary workers. To assure themselves of having an opportunity to render good medical service during a disaster and its aftermath, physicians must take the lead in making certain that similarly careful planning has been done in the related fields of rescue, communication, transportation, and fire and police work. Thus, two distinct obligations face the physicians: acquisition of recognized technics for the handling of medical emergencies, and stimulation and training of auxiliary workers. Men and women in related health fields are eager for the leadership which only the medical profession can give.

Daily papers and news broadcasts report disasters that give us pause. All of us feel regret and unhappiness after receiving these reports, but too frequently we reassure ourselves with the thought that nothing of the sort could happen to our locality. On the contrary, disasters are unpredictable and can happen anywhere. Tornadoes, floods and severe fires are some of the misfortunes that can come suddenly or with little warning. The increased speeds of streamlined trains and aeroplanes have multiplied the possibilities of accidents and serious injuries. Jet planes, with increased

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power and speed, add to the potential destructiveness of such accidents, and the chances are increasing that such mishaps will injure not only the fliers but people on the ground as well. A wide variety of chemical agents, many of them explosive, are being used in commerce and are adding to the potential destructiveness of industrial accidents. Technology, with the greater use of powered machinery, has added to the list of potentially destructive agents, in spite of the advances that have been made in safety programs.

Physicians are being called upon to treat emergencies more frequently than in the past. But in too many instances, emergency medical care has been the concern only of a small group of doctors —the industrial surgeons and the military surgeons. The increased possibilities of need for emergency medical service, including the possibility of thermonuclear warfare, make it essential that all physicians take an active interest in it.

FLEXIBLE PLANS ARE NEEDED

For convenience, the complex problems of emergency medical service can be arbitrarily divided into:

1. Reception of casualties
2. Sorting and arriving at initial working diagnoses
3. Initiation of emergency medical care
4. Evacuation.

When there have been few casualties, the usual methods of management suffice, but when large numbers of casualties have occurred simultaneously, there is a necessity for team effort, and team effort presupposes pre-planning.

The medical aspects of emergency medical care start with speedy reception. Advance plans should include means of permitting large numbers of casualties to be received at the hospital with a minimum of confusion. Often hospitals and medical staffs have inadequate or inelastic disaster plans. Careful, realistic and sound disaster planning takes time, thoughtful appraisal of small details, and careful coordination of all sections of the medical staff and of the elements of the hospital. Wasteful and uncoordinated action by the staff can easily prevent the rendering of speedy and effective medical treatment to patients when large numbers of them have been brought in at the same time or in rapid succession.

Experience at Texas City, Flint, Worcester and other disaster sites has shown the need for advance planning. Disorganization and resultant confusion in each instance prevented utilization of the full professional capabilities of the city. The major problem is not what the doctor will do after he and the patient have been brought together. It is the recruiting, training and organizing of laymen and a relatively small number of professional people whose work will enable the doctor to reach the patients in the order that the natures of their injuries demand, and to treat them adequately.

Disasters vary in type and in extent. It is desirable for each community or group of communities to make flexible plans for full and complete utilization of its medical resources. One must plan for the worst. Once the complete plan for full-scale disaster relief has been drawn, modifications to cover less extensive emergencies can be formulated rather easily. Plans should be flexible enough to cover all types of natural and artificial calamities. A serious train wreck near a small community would severely tax the entire medical resources of that town and of the surrounding ones as well. Each community, large or small, should plan on the same basis. It matters little whether the casualties follow a tornado or a nuclear attack, for the medical problems are essentially those of numbers and types of injuries. Communities may be faced with the task of treating large numbers of severely burned patients after an explosion of some highly volatile chemical. Their injuries would not be very dissimilar from the burn cases produced by an A- or H-bomb burst. Alternate plans for using a part of the hospital's resources and personnel should be made for disasters of lesser magnitude.

Flexibility can be accomplished through planning, in so far as is possible, for each of the hospitals in the vicinity to prepare for handling no more than one or two types of casualties—shock, fractures, chest injuries, burns, etc. Numbers of casualties are merely expressions of the extent of the disaster. Even in a minor catastrophe, there is strong likelihood of there being various types of injuries.

Plans should be simple and easily understandable. It is desirable that plans be written so that they can be studied by all hospital personnel. Printed operational plans have the advantage of permitting study by new staff members and new hospital employees. And if printed copies of the plans are available at the time a disaster occurs, they can advantageously be distributed to volunteer workers. Experience indicates that in nearly all disasters the procurement of volunteers is no problem. They arrive on the scene in large numbers. The difficulty is that in many instances their help is utilized poorly, if at all. During a flood in a midwestern city, for example, a group of nurses offered their services, but no one about the hospital was able to suggest an assignment for them. When they had looked around them, they discovered that large numbers of evacuees, many of whom had been injured, were crowded about the admission office. After making a few inquiries, the nurses began a registration service that permitted an orderly admission of patients to the hospital. These women rendered real assistance, but with advance planning, clerical personnel could have

been secured to do the registering, and the nurses could have been utilized to greater advantage in caring for patients. Placement and utilization of volunteers involve some real problems, and they are best met by means of plans that have been agreed upon in advance and which have been written, printed and publicized.

RECEPTION OF CASUALTIES

Reception and registration of patients is an important phase of combatting any disaster. A hospital administrator, working with clerical personnel in his community, can devise methods of expanding these vital services rapidly. An information bureau should be established as early as possible. Inquiries concerning relatives and friends will be made in large volume, soon after the disaster. These personal inquiries, telephone calls and telegrams must be answered promptly if the public is to be satisfied and if the chances of panic are to be reduced. The volume of messages is often staggering, and a fairly large staff must be recruited to handle them. There is no doubt that some of them scarcely deserve answering. An analysis of inquiries following disasters has shown that calls, wires and letters came not only from close relatives, neighbors and intimate friends of the people who had been involved, but also from distant relatives and casual acquaintances of the individual in question. It is one of the vagaries of human nature that a person may become quite genuinely concerned about a distant relative or a onetime acquaintance when he hears of a disaster in which he may possibly have been killed or injured. Inquiries sometimes are made concerning people who had moved from the region years before the disaster. Priorities, nevertheless, cannot easily be set up, it takes time to process all of the inquiries, and they must be answered if anxiety is not to be built up in the minds of the interrogators.

Traffic management is another problem that must be anticipated. Those who live relatively near to the disaster area drive over to see "how things look," and crowd the already heavily taxed highways. Physicians and auxiliary personnel must be provided with a means of passing through police lines, or they will not be able to get to the hospital to care for the injured. And congestion must be avoided on the streets and roads between hospitals.

Some people may question why these matters not directly related to medical practice are being permitted a place in this discussion. The answer is that unless adequate attention is given to the registration of casualties, to the establishment and operation of an information bureau and to traffic control, physicians will be interrupted in their professional work or will be prevented from doing it at all. Physicians have a vital interest in seeing to it that laymen and laywomen are ready to attend to these important details.

SORTING PATIENTS AND MAKING WORKING DIAGNOSES

As each patient is admitted to the hospital, a physician should examine him promptly and carefully, so as to arrive at a working diagnosis of his injuries and to decide how promptly they need to be treated. The doctor will note the presence or absence of shock. He will refer the slightly wounded to the proper agency for further treatment. Injuries requiring specialized care will be referred for treatment on the spot, or will be transported to the hospital which, according to the plan, is specializing in the patient's type of difficulty. It is the sorting physician who makes that decision. He occupies a position that requires quick but sound judgment amid very trying conditions. It goes without saying, then, that he must be a well-experienced and mature doctor of medicine, for through sound judgment and proper classification he will probably save as many lives as anyone in the hospital.

INITIATION OF EMERGENCY MEDICAL CARE

Physicians too frequently assume that the group of nurses and hospital attendants with whom they are accustomed to work will always be available to them. But after a disaster, many if not all of the physicians in an area go to the hospital to give emergency medical care. The operating room staff and the ward staffs that have previously worked with the private practitioners more or less in rotation are insufficiently numerous to work with all of them at the same time. Thus, disaster planning must include provision for the augmentation of operating-room and ward staffs.

Administratively, the provision of auxiliary personnel of this sort poses an especially difficult problem. The teaching of untrained or partially trained people is time consuming and can be looked upon as a nuisance, for it upsets the well-ordered routines of a smoothly working operating room staff. But so that disaster will not bring confusion, it must be done. Physicians and nurses should find places for teaching sessions and for trial runs of emergency disaster teams, and, in addition, they should give the recruits some routine hospital training and experience. Following a disaster, the abilities of the professionals will be sufficiently taxed without their having the added responsibility of training their assistants "from the ground up." Sundays, holidays, and the least busy weekday hours can be advantageously used as training periods.

Care should be taken so that casualties among medical and health-service teams will not seriously cripple their effectiveness. Having one or possibly two alternates for each position, selected and trained in advance to fill vacancies that may occur, is desirable, but if such detailed preparations for trouble are too much to ask for, the establishment of a key group or cadre of staff members

is a good approach. In so far as possible, they can prepare to coach the green or partially trained personnel who may be added to the hospital staff in a time of stress. This latter scheme has proved effective in some places.

To a large extent, the effectiveness of surgical care in an emergency will depend as much upon the functioning of the operating-room and ward staffs as upon the competence of the surgeon. After the Flint tornado, one middle-aged hospital attendant went to the hospital to work. She was a diet maid, and there seemed to be no opportunity for her to perform her accustomed duties. No one was able to suggest anything else for her to do, but she found an essential task for herself. After hearing nurses complain that soiled operating-room linen was accumulating, she summoned several of her friends and neighbors to come to the hospital to help her wash it. Thus, she enabled the operating room service to continue functioning.

The medical profession must take the initiative and must exercise leadership in recruiting, selecting, training and guiding professional cadres for emergency medical service.

EVACUATION

Evacuation plans must be made in advance of a disaster. It is natural for all sick and injured to be brought to a hospital for care, regardless of the magnitude of their ailments. Unless some evacuation plan has been agreed upon in advance, hospitals soon become overcrowded. All hospitals in a locality and in surrounding communities must have shares in a master plan for coping with disaster. The evacuation aspect of that joint program is especially demanding of careful planning, tact and wise judgment. At Worcester, Flint and Jackson, several hospitals were filled to overflowing when other hospitals only a relatively few miles away were still waiting for patients. Careful planning could have prevented that difficulty, for transportation crews could have been instructed which type of patients to bring to each of the cooperating institutions.

Evacuation is dependent upon transportation facilities and adequate communication. Arrangements should be made in advance for individually powered radio nets between hospitals and between the hospitals and the transportation facilities. The disruption of electric power and telephone lines at Worcester completely isolated the various hospitals.

CONCLUSION

Perhaps some readers will consider this a visionary approach to the problem, but a review of the record reveals these sober facts. During the Texas City disaster, local professional groups were unable to work as the result of a lack of auxiliary personnel, supplies and equipment. It required the trained personnel from Brooke Army Medical Center to furnish messengers and vital team workers. After an explosion and fire in Chicago involving fewer than 85 casualties, five city hospitals were almost completely disrupted by the sudden influx of patients.

Disaster is an inevitable and unpredictable part of life. The medical profession has the responsibility of providing sound, scientific medical care to the victims of disaster. Through thoughtful planning, adequate training and capable leadership, the medical profession must give the impetus and guidance necessary to the furnishing of effective emergency medical service in any disaster.

Surgeons Set Standards

The American College of Surgeons, through its Committee on Cancer and its Department of Professional Services and Accreditation, has set up standards for cancer programs and offers to grant its approval to specific hospitals that conform with them.

Requirements for three types of institutions differ. (1) The specialized cancer hospital is expected to provide complete service for cancer patients; (2) The general hospital conducting organized cancer clinic activities is expected to maintain a cancer registry and offer cancer consultation and treatment service; and (3) the general hospital that is relatively small may get recognition for merely maintaining a registry for all cancer patients.

In each of those three sorts of institutions, however, the cancer program must be under the supervision of a cancer committee consisting of physicians directly concerned with the diagnosis and treatment of cancer. The duties of the cancer committee shall be to initiate, supervise and appraise the cancer programs, and to report to the staff at least annually. Minimum content of the cancer registry shall consist of the names and addresses of patients in whom cancer has been diagnosed, together with abstracts of their clinical records. Annual follow-up notes must be maintained as long as the patients live.

In cooperation with the National Cancer Institute and the American Cancer Society, the College surveys hospitals and cancer clinics regularly to make certain that standards are maintained. This program is not, however, to be confused with that of the Joint Commission for Accreditation of Hospitals, of which the American College of Surgeons is one of the sponsoring organizations.

State University of Iowa College of Medicine

Clinical Pathologic Conference

December 14, 1955

SUMMARY OF CLINICAL FINDINGS

A 54-YEAR-OLD WHITE woman was followed at the State University of Iowa Hospitals over the years 1948-1954 for a condition that had begun with a swelling over the sternum when she was 44 years of age. She described it as being hard, non-tender and fixed to the bone. Over a period of four years it increased in size, and then during the next six months it seemed to enlarge at a faster rate. At that time, in the spring of 1948, the patient also noted sternal pain and fatigue, and sought medical attention in Little Rock, Arkansas. An attempt was made, at Little Rock, to remove the sternal lesion, but it had to be abandoned when severe bleeding developed. Instead, 1,800 roentgens were given to the area. An x-ray bone survey at that time was negative.

A month later, in late July, 1948, she was admitted for the first time to University Hospitals, Iowa City, because of continued fatigue and sternal swelling. Her past history and her systems review were non-contributory. Physical examination revealed a well-developed and well-nourished woman weighing 170 pounds. Beneath a surgical scar on the sternum was a 5 cm. circular mass described as raised, firm, tender and fixed to the bone. The blood pressure was 120/70 mm. Hg. There was no lymphadenopathy and no other significant physical findings. Films of the thorax showed that an osteolytic and osteoblastic process involved the entire manubrium. Films of the skull and pelvis were interpreted as normal.

The urinalysis showed a specific gravity of 1.020, an acid reaction, and negative albumin and sugar. Microscopic examination was negative. The hemoglobin was 10.1 Gm./100 cc., the red blood cell count was 3,420,000 per cu. mm., and the white blood cell count was 5,800 per cu. mm., with a normal differential. The sedimentation rate was 119 mm. per hour. Total proteins were 7.50 Gm./100 cc., albumin was 3.88 Gm., and globulin was 3.62 Gm. A Wassermann serologic test was negative. Bone marrow from the spinous process of the third lumbar vertebra was interpreted as normal.

One month after the patient's admission, a surgical resection of the upper half of the sternum, medial ends of the clavicles and anterior tips of the first three ribs was performed. One month later, she was discharged.

During her three-month postoperative visit, pain and a nodule in the incision were noted, and the nodule was removed surgically. The hemoglobin at that time was 12 Gm./100 cc., the red blood cell count was 4,300,000 per cu. mm., the white blood cell count was 4,000 per cu. mm., and the differential blood count was normal. The sedimentation rate was 58 mm./hour, and the urine was negative. Total proteins were 7.24 Gm., albumin was 4.04 Gm. and globulin was 3.20 Gm. The bone marrow was interpreted as normal.

At the nine-month postoperative visit, the patient voiced no complaints. X-ray films of the skull, chest, spine and long bones showed no change. The basal metabolic rate was –7. Total proteins were 9.12 Gm., albumin was 4.94 Gm., and globulin was 4.18 Gm. The urinalysis was negative, and the sedimentation rate was 60 mm./hour.

At the 15-month postoperative visit, the patient complained of pain in her left leg. All studies, including x-ray film interpretations, were normal.

When she was seen two years after her operation, she voiced no complaints. An x-ray film of her chest showed no change.

At her 2½-year postoperative visit, she complained of radiating pains in her legs. X-ray films of the legs were negative. No abnormal neurologic findings were discovered. Total proteins were 8.59 Gm./100 cc., albumin 4.23 Gm. and globulin 4.36 Gm. The sedimentation rate was 72 mm./hour.

At her three-year postoperative visit, the patient had leg pains. The sedimentation rate was 96 mm./hour. Total proteins were 7.47 Gm., albumin 4.08 Gm. and globulin 3.39 Gm. X-ray films of the pelvis and legs were negative.

Four years postoperatively, the patient complained of right lower quadrant abdominal pain. X-ray films of the genitourinary and gastrointestinal systems were negative. An x-ray film of the pelvis showed an osteolytic lesion in the inferior ramus of the pubis.

No change was noted during the 4½-year postoperative visit.

X-ray films taken 5½ years postoperatively showed an increase in the size of the ischial lesion. Total proteins were 11 Gm./100 cc., the albumin was 3.08 Gm./100 cc. and the globulin was 7.92 Gm./100 cc.

At the six-year postoperative examination and final hospital admission, the patient said she had vomited daily for three weeks, and on some days as often as ten times. There was associated nausea. She also had occipital headache and had noticed a ten-pound weight loss. The right-lower-quadrant-abdominal and thigh pains were the same as on

previous visits. Weakness had become progressive and had required almost continuous bed rest during the week previous to her admission.

The patient looked tired and listless. Her pulse was 84 beats per minute, her blood pressure was 140/80 mm. Hg. and her oral body temperature was 99°F. The blood urea nitrogen was 132 mg. per cent, and the creatinine was 15 mg. per cent. Total serum proteins were 9.6 Gm./100 cc., albumin 2.85 Gm. and globulin 6.75 Gm. On urinalysis, the specific gravity was found to be 1.007, the pH was 5, the albumin was 1+ and the microscopic examination was negative. The hemoglobin was 10 Gm./100 cc., and the white blood count was 6,300 per cu. mm. The sedimentation rate was 142 mm./hour. The bone marrow was normal. The serum sodium was 118 mEq., the serum chloride 98.3 mEq., the carbon dioxide combining power 7.7 mEq. and the serum potassium 7.2 mEq. X-ray films of the thoracic spine showed a partial erosion of the seventh vertebra.

The patient worsened during the next three weeks, in spite of ACTH, urethane and supportive therapy, and she died on her twenty-first hospital day.

CLINICAL DISCUSSION

Dr. Paul M. Seebohm, Internal Medicine: At the age of 44 this patient noticed a small nodule on her sternum. At that time she did not think it had any medical significance, and there is a suggestion in the history that a physician took a look at it and gave her some reassurance. But four years later, the lump had increased in size, and the patient had developed general fatigue and some pain in the area of the swelling. A surgical attempt at removal was made, but because of severe hemorrhage, the mass could not be taken out. A biopsy was taken, however, and she was given x-ray therapy to the area.

A month later, she came to this hospital. Here, the lesion was extirpated completely, and the adjoining cartilages of the ribs and the sternum were removed. The surgeon believed he had completely removed the lesion in the sternal area.

About four months later, the wound had healed slowly, but had developed another nodule. The second lesion was then removed surgically, and the wound proceeded to heal completely.

The patient was seen on frequent subsequent visits to this hospital. Frequent x-rays were taken and other studies were made. In her fourth postoperative year, the x-rays revealed a lesion in the inferior ramus of the pubis. In the subsequent two years it was seen to increase in size.

She was readmitted to the hospital six years after her operation, primarily because of vomiting and nausea, some loss of weight and general debility. The clinical and laboratory findings which you see in the protocol were quite suggestive of uremia. The BUN and creatinine were elevated. She also had anemia, which had not been present before. The hemoglobin was 7 Gm., there was acidosis and the carbon dioxide combining power was 7 mEq. The x-rays at that time revealed new lesions in the thoracic spine.

During the patient's six years of periodic visits to this hospital, a number of factors were checked so that we might see whether or not a tumor was recurring. The initial biopsy of the tumor revealed a myeloma type, and although it appeared that the patient was considerably improved by the initial surgery, the notes on the chart indicate that her physician anticipated a recurrence and made a number of checks. We investigated some of the things we think usually indicate the presence of multiple myeloma and which are used as criteria for diagnosis. The proteins, hemoglobin and sedimentation rate were measured rather frequently; multiple x-rays were taken of the skull and long bones; and the urine was analyzed a total of 12 times for Bence-Jones protein.

Very early, you will note, not only the globulins but the total proteins were high, though they later came down within what might be considered a normal range. Terminally, the proteins once more rose to the values of 11 and 9, and the globulins were also elevated. The Bence-Jones protein tests in the meantime were negative. The bone-marrow aspirations—which as nearly as I can tell were taken on two occasions, early and late in the disease—revealed nothing abnormal. In the meantime, however, the sedimentation rate dropped from 117 into the range of 50 or 60 at the time the patient appeared to be at her best. At the second-year check-up, it had increased again, and then terminally it was as high as 150 mm./hour.

There were a number of blood counts made. I should like to summarize the hematologic studies by saying that the hemoglobin was always above 11, and the red count was always above 3,500,000 until the last admission. The white count was always within normal range, and the differential was considered normal on all examinations. I think, then, that it is worthwhile pointing out that some of the classic findings of multiple myeloma did not appear. The patient did not have punched-out areas in her skull, Bence-Jones protein in her urine, abnormal cells in her bone marrow, significant globulin changes in her blood, or significant anemia until terminally.

Dr. Gwilym S. Lodwick, Radiology: In a chest film made at the time of the patient's first admission on July 20, 1948, there was the shadow of a mass in the region of the superior mediastinum. From that single film, we had no really clear idea of what the lesion was. Two days later, however, a Bucky examination was made, including a lateral view of the sternum. Although the technic of that examination was poor, one could see a zone of destruction in the upper portion of the sternum which involved the entire manubrium. That tumor, growing from within, had thinned the cortex, completely destroying it in some areas and expanding it in others. One could see fine,

lacy trabeculations running over the surface of the tumor.

In June, 1949, 11 months later, the patient apparently had some complaint related to her right leg, for a film of her right femur was obtained. The femur then appeared normal, but coincidentally, a destructive lesion involving a portion of the pubis and ischium was demonstrated. This tumor had thinned the cortex, and again there was fine, lacy trabeculation and a very slight expansion of the cortex. This large lesion was apparent some 11 months following resection of the original tumor. Since we had no film of the area taken at the time the sternal lesion was discovered, we had no way of being sure how long this second lesion had been present.

A film of the pelvis was made in 1953. The destructive lesion that had first been observed in 1949 seemed to have grown very little. Another had appeared on the opposite side of the pelvis—again a slightly expanded, trabeculated type of lesion. One year later, a progress film of the pelvis showed little change in either of the two lesions.

An examination of the spine made in 1953 showed no lesion. One year later, however, there was a destructive tumor in the body of the seventh dorsal vertebra. The body was beginning to collapse slightly, and a lacy, destructive change could be seen extending posteriorly into the pedicle of the vertebral body. At no time were destructive lesions demonstrated in the skull.

Thus, tumors appeared successively over a period of five years in the sternum, pelvis and spine. All of the lesions were quite similar roentgenographically: central destruction, erosion, slight expansion and lacy trabeculation of the cortex. The margins were sharply delineated. The pattern of growth in each tumor was that of a slowly growing, localized tumor, rather than of an aggressively infiltrating one. This behavior is typical of myeloma. I believe that a roentgenologist should strongly suspect myeloma when confronted with lesions such as those.

If I may, I should like briefly to review the roentgen changes in myeloma. In addition to the cases in which there are no bone lesions at all, there are four general patterns of bone destruction in myeloma. First, there are some cases (15 per cent) in which the only demonstrable lesion is a coarse osteoporosis involving chiefly the bones of the trunk, skull and proximal extremities. There is nothing specific for myeloma about this osteoporosis. It could equally well be the result of senility or of any other condition that causes osteoporosis. Second, in about one-half of myeloma cases the principal lesions are multiple, punched-out holes in bone. Those holes tend to be separate, rather than confluent, and the edges are sharp and smooth, suggesting a localized rather than an infiltrating tumor. In 100 cases of myeloma with this pattern of destruction, 90 cases will have holes in the bones of the trunk, 60 cases will have holes in the skull, and 50 cases will have holes in the extremities. Third, there is the group of cases (20 per cent) with large holes in bone. These may occur singly, as the "solitary" form of myeloma, or in multiple bones of the skeleton. In these lesions the bone is completely destroyed, and one is likely to be led into making the mistaken diagnosis of metastatic hypernephroma. Fourth, we find a small group of cases (15 per cent) in which the tumor erodes from within while the periosteum deposits a shell of bone from without to form an expanded tumor, with surface trabeculation. Such lesions may occur singly or in many bones, as in today's case, and are often associated with a peculiar, highly vascular form of myeloma which bleeds furiously when subjected to surgical attack. It should be pointed out that the bone lesions of myeloma are almost entirely osteolytic. Occasionally there is the faintest marginal sclerosis, and an expanded periosteal shell can be seen, but never lamination, spiculation or extensive proliferative change. The four patterns may be found singly or in combinations.

A word or two should be said about solitary lesions. About 20 per cent of myelomas are known to begin as primary tumors, about half in the spine, one fourth in the ribs and the remainder in other bones. These tumors remain solitary for varying periods of time (usually no more than a few months to a year), and then the multiple lesions appear.

Dr. Seebohm: Dr. Lodwick, when you see an isolated osteolytic lesion in any bone, can you say positively that it is due to a multiple myeloma?

Dr. Lodwick: No.

Dr. Henry E. Hamilton, Internal Medicine: Dr. Lodwick, when you speak of a lesion or tumor as "primary," do you mean that there is myeloma nowhere else in the body?

Dr. Lodwick: I cannot tell whether or not there is myeloma elsewhere in the body. By *primary* or *solitary* I mean that only one has so far been discovered by x-ray examination.

Dr. Seebohm: Since, as Dr. Lodwick has said, when a radiologist sees an osteolytic lesion he cannot always be sure of the specific etiology, it is still a problem for the clinician to determine the fundamental etiologic nature of the osteolytic lesion. In multiple myeloma there are a number of clinical criteria, most of which have been mentioned this afternoon. We are especially concerned about proteins, for multiple myeloma is peculiar in that it influences the plasma proteins in many cases.

Dr. Joseph I. Routh, Biochemistry: Early studies on plasma proteins in multiple myeloma obviously had to do with fractionation—the determination of albumin and globulin and even of the euglobulins and pseudoglobulins. The common type of fractionation carried out with sodium sulphate follows the

method developed by Howe. During the ten years that electrophoretic analysis has been reasonably common, however, considerable work has been done by that means on the patterns of serum and plasma from multiple myeloma patients. The method is reasonably satisfactory, for in most cases one finds abnormalities that are fairly easy to interpret, at least from the standpoint of plasma or serum proteins. Most cases of multiple myeloma, it seems, present patterns sufficiently different from those of patients having other diseases so that one can distinguish them quite readily. Yet, it is obvious from the literature that such may not always be one's good fortune.

Obviously, one should first look for Bence-Jones protein in the patient's urine. The method for its detection is fairly simple, and if one finds it, he can expect to find abnormalities in the serum or plasma proteins.

The majority of the specimens we have run on multiple myeloma have given us patterns resembling the one that appears first in the accompanying three charts. Compare it with the second chart, which represents normality.

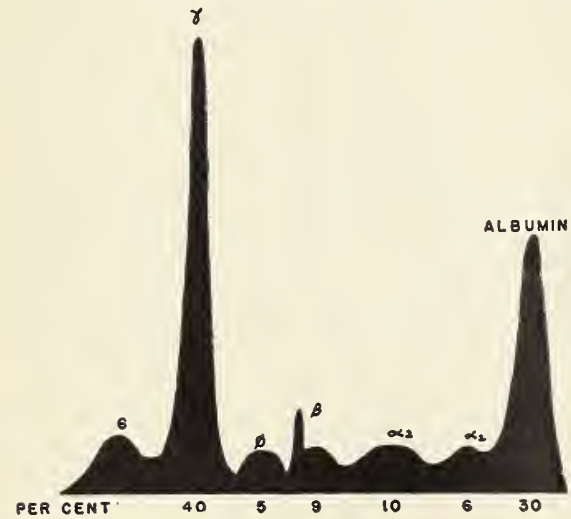


Figure 1. Typical multiple myeloma electrophoretic pattern.

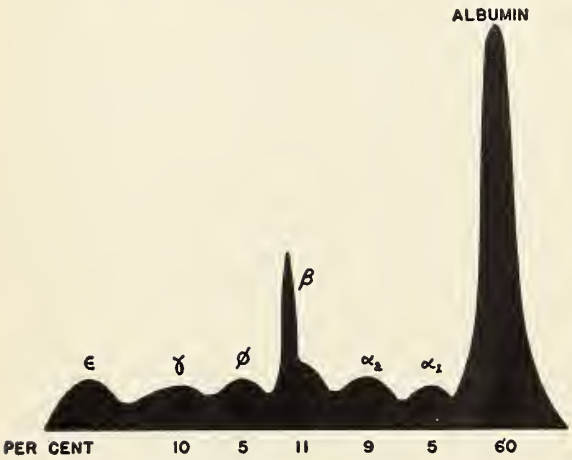


Figure 2. Normal plasma pattern.

As you may recall, normal plasma proteins consist of about 60 per cent albumin; 5 per cent alpha$_1$; 11 per cent beta; 5 per cent fibrinogen; and 10 per cent gamma globulin. In multiple myeloma, the major change in the plasma proteins consists of a reversal of the A/G ratio. Gamma globulin constitutes anywhere from 25 to 60 per cent of the total, and though the fibrinogen and the beta, alpha$_2$ and alpha$_1$ globulins are virtually unchanged, there is a proportionate decrease in the albumin. Additionally, multiple myeloma brings about a marked increase in the total plasma proteins, from 6 or 7 Gm./100 cc. to 8-15 Gm./100 cc. Whether or not the increase consists of Bence-Jones protein is open to question.

There are essentially three abnormal types of electrophoretic patterns obtained in multiple myeloma. Most resemble the first shown here, in which the abnormal (Bence-Jones?) protein is represented as swelling the gamma globulin component. But there are many patterns in which the abnormal protein is located between the beta and the gamma peak. In such cases, it engulfs the fibrinogen in the pattern. Once in a while, one finds the peak on the trailing end of the beta globulin. Bence-Jones protein migrates at a speed between that of the beta and that of the gamma globulin, but because it does not always migrate at the same speed, it obviously won't always occupy the same position on the electrophoretic pattern. Bence-Jones protein has a molecular weight of about 37,000, and it has been shown that the abnormal proteins in the multiple myeloma pattern are not always Bence-Jones proteins. Sometimes they are abnormal proteins similar to, but not exactly the same as, gamma globulin. Their one invariable characteristic is their sharp peak, more like the albumin peak, as contrasted with the blunted peak or round hill assumed by gamma globulin in liver disease. As yet no one has definitely proved that the sharp, abnormal peak is Bence-Jones, but it is unquestionably related to

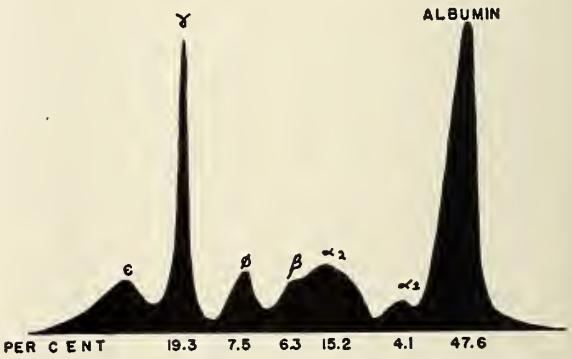


Figure 3. Patient's plasma pattern.

Bence-Jones and probably gives rise to Bence-Jones protein in the urine. If one runs an electrophoretic pattern of urine proteins containing Bence-Jones, he finds that the abnormal pattern migrates at a speed close to that of the beta globulin, whereas in the serum, it has a speed between those of beta and gamma, or exactly equal to that of gamma.

I am not sure of the reason, but with respect to this patient the only patterns we have were obtained in February and June, 1949. In both instances, there was an abnormal peak over the gamma globulin. The earlier one of them did not precisely indicate a reversed A/G ratio, and probably would not have been interpreted as definitely indicating multiple myeloma. But its outstanding characteristic, the small, sharp peak rising over the gamma globulin, is enough to have made one strongly suspicious, for gamma globulin doesn't usually present that sort of profile. The pattern obtained in June was very similar, but it had a higher peak over the gamma globulin. As far as interpretation is concerned, these 1949 patterns gave a strong indication of the possibility of multiple myeloma.

There has been a great deal of study on multiple-myeloma proteins, and three possibilities have been discovered: (1) There can be multiple myeloma with virtually no change in proteins. The albumin is reasonably normal and all of the globulin components are normal. There is no abnormal peak in such cases. (2) There is another type in which the Bence-Jones protein or abnormal peak migrates at exactly the same speed as the gamma. This is the type to which most of our cases have belonged. (3) In another type, the abnormal protein peak falls somewhere between the beta and the gamma globulin.

Thus, it will be seen that in the majority of instances the electrophoretic pattern is highly useful in the diagnosis of multiple myeloma. In no other disease that we have studied here or that has been discussed in the literature does electrophoretic analysis produce a similar type of pattern.

Dr. Russell Meyers, Neurosurgery: Dr. Routh, in clinical surgery it is the custom to say that Bence-Jones protein appears in no more than about 65 per cent of patients with myeloma. Now, I gather that when one encounters the pattern of which you have been speaking, he is fairly safe in postulating the existence of myeloma, but when he doesn't, he can't make any such postulation. So far as you know, is there any reason why some types of myeloma having those histologic characteristics produce no aberrations in the curve?

Dr. Routh: My only idea is that in particular patients the mechanism that forms abnormal protein is ineffective. I don't know that anyone has as yet found where the abnormal protein arises—when it does arise—or has explained the mechanism for its production. If by means of signs and symptoms one can show that a patient has multiple myeloma, but if the electrophoretic pattern of the patient's serum or plasma is perfectly normal, then it must be that the mechanism for the formation of abnormal protein in that patient is not functioning.

Dr. John R. Carter, Pathology: The patient under discussion today had what I prefer to call plasma cell myeloma, for the term *multiple myeloma* less satisfactorily suggests the biological variants that occur in this disease process.

In this case, the bones of the skull, the ribs, the vertebrae and the pelvis were involved. The patient also had what is referred to as myeloma kidneys. There was very extensive tubular damage. The creatinine was 7.6 mg. per cent, and the BUN was 225 mg. per cent at the time of her death. There were no amyloid deposits in the kidneys or in any other organs. There was secondary hyperplasia of the parathyroid gland. A very extensive necrotizing bronchopneumonia involved all lobes of both lungs, and there was a small empyema at the base on the left. The liver, spleen and lymph nodes, interestingly enough, were not involved by the myelomatous process.

The causes of death in this individual were uremia, failure of the kidney to function properly, and extensive bronchopneumonia.

In a specimen of bone marrow we found there was a very sharp line of demarkation between the cellular zone and the normal marrow, the cells being almost all plasma ones, with a few myeloid elements. In one area, the hematopoietic tissue was relatively normal except for a few scattered myeloma cells. Farther out, the bone marrow was normal. I call special attention to that feature because of the difficulties which occasionally arise in the examination of aspirations of bone marrow, with the result that findings are negative as regards plasma cells. In so-called multiple myeloma, when there are multiple, discrete punched-out areas, this type of local marrow involvement is not at all unusual, with the result that negative bone-marrow findings are not at all uncommon. Much depends upon the stage of the disease. In diffuse myelomatosis, there are no discrete nodules. Instead, the entire bone marrow is usually riddled with myeloma cells.

One of the interesting points in this particular case is the fact that the material available from the autopsy showed myeloma cells which were exceedingly immature—so immature that 90 per cent of them were virtually unclassifiable. This finding is in striking contrast with the results of our examination of a specimen taken from the same patient in 1948, in which the myeloma cells were very definitely recognizable as plasma cells. Apparently there had been a striking change in the degree of differentiation over that period of time.



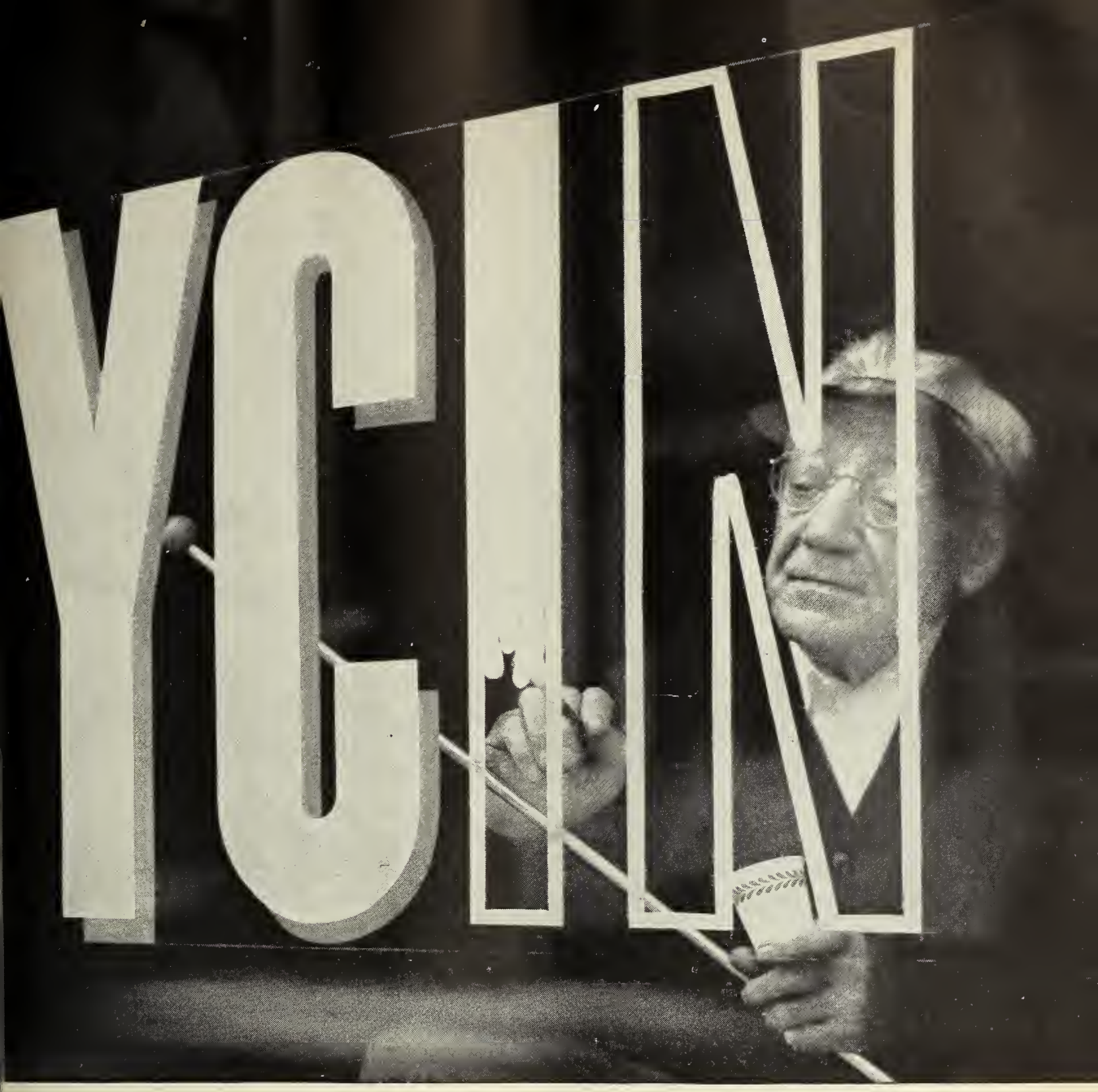
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The kidneys showed extreme damage in some areas. One of the most conspicuous features was the presence of hyalin casts scattered rather indiscriminately throughout both kidneys. There were large areas of atrophy, both of the glomerular and of the interstitial tissue, as well as of the tubules. And there were scattered areas of inflammation. No myelomatous infiltrates were found.

In a high-power photograph of the crystalline masses that are very frequently present in so-called myeloma kidneys, we noted the usual concentric arrangement and found the little streaks and clefts which are presumed to be Bence-Jones protein. Around those hyalin masses, chronic granulation tissue or pseudo-granulomatous reaction and many peculiar giant cells are often to be found. In this patient, there weren't many giant cells and they weren't so large as usual.

Microscopic examination of several parathyroid glands, because of the extreme kidney damage and renal insufficiency, showed the typical Wasserhelle type of change that one sees in secondary hyperplasia.

As you know, plasma-cell myeloma is regarded as a malignant and invariably fatal process arising from plasma cells in the bone marrow. It occurs in twice as many men as women, and presenting symptoms usually occur in patients between the ages of 50 and 70 years. More specifically, patients are usually between 50 and 70 when they consult a physician, and it is possible that they were somewhat younger when they contracted the disease. As a rule the patient is in the terminal stages when he seeks medical attention, and in anybody's series the average survival time after the appearance of major symptoms is scarcely more than a year. The duration of symptoms is very difficult to evaluate, however.

The disease process is exceedingly insidious at times, but bone pain is perhaps the commonest complaint. It occurs in virtually all patients, regardless of whether they have multiple myeloma or a diffuse myelomatosis, and it can be localized, diffuse or wandering. Usually the bone pain is most severe when the tumor is large enough to cause expansion of the cortex, but pain can occur in the absence of that expansion, if the periosteum is irritated or if the nerve endings in the Haversian systems are subjected to pressure. I don't mean to imply that multiple myeloma characteristically involves the periosteum, for it doesn't. I am referring to the painful pressure or tension placed upon the periosteum. Weakness, susceptibility to fatigue and a host of other non-characteristic symptoms are likely to occur. Anemia and thrombocytopenia often appear in the terminal stages of the disease. Pathologic fractures occur in about 55 per cent of cases.

A few years ago, histologic variants of plasma cells in multiple myeloma were subclassified into lymphoblastic, erythrocytic, megakaryocytic and myelocytic types. But that subdividing process tended to confuse the issue more than to clarify it. It merely emphasized that there are different stages of differentiation of these cells. There are times when the myeloma cells resemble immature and blast forms, rather than plasma cells. Maturation of plasma cells, then, is basically no different from that which occurs in malignant lymphomas, with their varying degrees of differentiation.

The bleeding that occasionally occurs terminally in patients who have multiple myeloma has usually been thought to result from thrombocytopenia. But recently it has been shown, particularly by Frick and others,[1] that a circulating anticoagulant in the plasma prevents the conversion of fibrinogen into fibrin. Usually, individuals who have a very definite bleeding tendency along with multiple myeloma have not only a circulating anticoagulant but also thrombocytopenia, and neither one of them, alone, can be regarded as the cause of the bleeding.

Amyloidosis occurs in approximately 6 to 10 per cent of individuals with plasma cell myeloma, but interestingly enough, the distribution of this amyloid is not the same as in secondary amyloidosis. Ordinarily, the liver, spleen and kidneys are not involved. More commonly, the distribution resembles that of primary amyloidosis—tongue, gastrointestinal tract, heart, etc. The Congo red test isn't very useful in this type of amyloidosis.

Mention has been made of the changes that occur in the kidney in myelomatosis. As a corollary, I should like to mention that hypercalcemia occurs in approximately 55 per cent of cases. Initially, this is usually the result of the lysis of bone, but subsequently, when the kidney becomes damaged and renal insufficiency ensues, secondary hyperplasia of the parathyroid glands occurs, followed by hypercalcemia. Metastatic calcification occurs in approximately 25 per cent of cases and is present in such organs as the lungs, gastrointestinal tract and bladder.

The last point which I should like to emphasize is that there are four, or possibly five, variants of plasma cell myeloma. (1) There is multiple myeloma. (2) There is diffuse myelomatosis, in which osteoporosis is a highly important feature radiologically. (3) There is plasma cell leukemia, of which there have so far been about 50 reported cases and which, as a rule, occurs terminally in cases of multiple myeloma. (4) There is so-called solitary myeloma. (5) As a fifth group, one might include the extra-medullary myelomas—the myelomas apparently unrelated to bone.

It is the solitary myelomas to which I should like to call your particular attention. There is an interesting impression that multiple myelomas probably represent the terminal stage of the disease and that the disease process has then existed for many months, or even many years. There even are those who say that the solitary myelomas are benign tumors, but most of them are men who have followed patients for no longer than three

years. Such has not been our experience at this hospital, nor was it my experience when I had occasion to go over large numbers of cases at the Armed Forces Institute of Pathology some ten years ago. It isn't the feeling of Ackerman,[2] who has recently reviewed some 90 cases in his own hospital. The point which I should like to emphasize is, again, that in all probability, cases of so-called multiple myeloma are terminal whenever the lesions are actually multiple. The process probably began many years earlier, as was the case with the patient whom we are discussing this afternoon. It isn't enough for one to follow a solitary-myeloma patient for one, two or three years. There is nothing unique or unusual about this. The same can be said for carcinoma of the breast, for various forms of lymphoma or for a whole host of other disease processes.

One final point concerning the finding of plasma cells, either in the bone marrow or in the peripheral blood. There are several hundred disease entities in which plasma cells are integral parts of a given inflammatory process, and it is not at all unusual for one to find occasional plasma cells in the bone marrow by means of the aspiration technic. The finding of a few plasma cells in aspirated marrow is not diagnostic of multiple myeloma, nor is the finding of a few plasma cells in the peripheral blood. Rubeola, rubella, metastatic cancer of the bone, tuberculosis and numerous granulomatous diseases can at times give rise to plasma cells in the peripheral blood. Although such findings are suggestive of plasma cell myeloma, they are by no means pathognomonic of it.

Dr. Raymond G. Bunge, Urology: I should like to ask Dr. Carter about the hyalin deposits in the kidney and about the fact that no Bence-Jones proteins were detected in the patient's urine.

Dr. Carter: We know that this patient did have some abnormal proteins. As to whether or not the casts were Bence-Jones protein or whether the crystalline material within the hyalin casts was Bence-Jones protein, I don't know that anyone has any real justification in saying. At least we don't know from a pathologic point of view. The facts are that the casts were there, that there was severe tubular damage and that the patient had uremia. This was not one of the most severe cases of myeloma kidney that we had seen, but obviously it was severe enough to produce renal insufficiency. Thus, Dr. Bunge, I can't state the precise nature of the hyalin material. All that I can say is that it differed in appearance from the ordinary albumin or hyalin cast.

Dr. Bunge: Would you know whether patients who have normal electrophoretic patterns have kidney damage?

Dr. Carter: I can't answer that question. I can say, however, that as soon as Bence-Jones protein is discernible either by electrophoretic analysis or by urinalysis, the beginning of the end is near as far as the kidneys are concerned. There is a very striking correlation between kidney damage and the presence of Bence-Jones protein.

Dr. Hamilton: Did the bone marrow at postmortem show evidence of myeloma cells in any other areas than those of the tumors?

Dr. Carter: No, these were very discrete areas. There were large areas of the bone marrow that were normal except for the normocytic hyperplasia secondary to the anemia. Around those discrete areas there were a few satellite nodules of plasma cells, but beyond that, the bone marrow looked quite normal. It was not a diffuse myelomatosis in the sense that Dr. Lodwick was talking about a few minutes ago.

Dr. Hamilton: This is disturbing, for I think that most of our cases of multiple myeloma in advanced stages have "positive" marrows. I had even come to the point of believing that if we obtain a satisfactory "negative" marrow, we can be quite safe in ruling out multiple myeloma. A group in Chicago discovered that the marrow was diagnostic in all but one of some 77 cases with multiple myeloma.[3]

Dr. Carter: From where were those bone marrows taken—from the sternal and iliac crest?

Dr. Hamilton: I don't think it makes any difference where one obtains the marrow. We have many cases in which x-ray revealed no apparent bone lesions, but in which aspirations of dorsal spine, iliac crest and sternum were loaded with myeloma cells.

Dr. Carter: Well, that's significant and provocative. Just for argument along those lines, I might mention that in a series of cases worked up at the Naval Medical School, the inability to obtain bone marrows positive for plasma cells was so high that biopsies were frequently preceded by x-ray examination, and were subsequently obtained from the area in which a lesion had been located. There may be several explanations for this disparity. When we take our sections at the time of autopsy —usually from the rib, the femur and the vertebral column—we can demonstrate numerous areas where the bone marrow is perfectly normal, except in the typical circumscribed, punched-out areas. In the diffuse myelomatosis process, the situation is entirely different. There, one can get a positive sample by putting in a needle anywhere.

SUMMARY OF NECROPSY FINDINGS

The primary disease process in this patient was plasma-cell myeloma (multiple myeloma). The principal lesions were located in the bones of the skull, clavicle, sternum, ribs and vertebrae, and in the kidneys. The medial third of each clavicle and the superior third of the sternum were surgically absent, having been removed in 1948 for a "solitary myeloma of the sternum" (S-48-2621). Sections of this tumor revealed a plasma cell myeloma, the cells of which were decidedly more

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Coming Meetings

In State

Mar. 16-17	**Urology.** SUI College of Medicine, Iowa City
Mar. 21	**Centennial Meeting, Scott County Medical Society.** Blackhawk Hotel, Davenport
Mar. 22	**Diabetes Mellitus.** Iowa-Nebraska Medical Assembly, Hotel Chieftain, Council Bluffs
Mar. 22-23	**Disease of Heart, Lungs and Blood Vessels.** SUI College of Medicine, Iowa City
Apr. 6	**Visualization in Neurosurgical Diagnosis.** Midwest Neurosurgical Society, Des Moines Club, Des Moines
Apr. 11	**Neurology.** SUI College of Medicine, Iowa City
Apr. 11-13	**Iowa Public Health Assn., Iowa Heart Assn., and Iowa Trudeau Soc.** Savery Hotel, Des Moines
April 22-25	**Annual Meeting, Iowa State Medical Society.** Veterans Auditorium, Des Moines
May 16	**Allergy.** SUI College of Medicine, Iowa City

Out of State

Mar. 1-2	**Cardiac Roentgenology.** New York University, NYC
Mar. 1-3	**Dietetics for Dietitians.** Ctr. for Continuation Study, University of Minnesota, Minneapolis
Mar. 5-7	**Pediatrics for GP's.** Ctr. for Continuation Study, University of Minnesota, Minneapolis
Mar. 5-7	**Fourth Postgraduate Conference in Medicine & Surgery.** Temple Div., University of Texas, Temple
Mar. 5-7	**American College of Surgeons.** Broadmoor Hotel, Colorado Springs
Mar. 5-9	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 5-10	**Review of Clinical Pediatrics.** New York University, NYC
Mar. 5-14	**Mediclinics of Minnesota.** Ft. Lauderdale, Florida
Mar. 5-16	**Radiology of the Gastrointestinal Tract.** Mt. Sinai Hospital, NYC
Mar. 5-16	**Surgical Anatomy and Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 5-16	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 5-17	**Motor Anomalies of the Eye.** New York University, NYC
Mar. 6-13	**Pan American Medical Women's Alliance.** Santiago, Chile
Mar. 6	**Symposium on Vitamin Metabolism.** National Vitamin Foundation, Inc., in cooperation with Univ. of Texas. Biltmore Hotel, NYC
Mar. 7	**Dentistry and Medicine.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 7-9	**Michigan Clinical Institute.** Sheraton-Cadillac Hotel, Detroit
Mar. 8-10	**Eleventh National Conference on Rural Health.** Hotel Multnomah, Portland, Oregon
Mar. 12-13	**American College of Surgeons.** Hotel Marion, Little Rock
Mar. 12-14	**Spring Clinical Conference, Dallas Southern Clinical Society.** Dallas
Mar. 12-14	**Pediatrics.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 12-14	**Refresher Course in Allergic Conditions.** New York University, NYC
Mar. 12-16	**Obstetrics & Gynecology.** George Washington University Hospital, Washington, D. C.
Mar. 12-16	**Symposium on T-B & Other Pulmonary Diseases.** New York University Bellevue Medical Center, NYC
Mar. 12-23	**Fractures and Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 12-23	**Electrocardiography & Heart Disease; Basic Course.** Cook County Graduate School of Medicine, Chicago
Mar. 12-23	**Office & Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Mar. 15-16	**Hematology.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 15-17	**Ear, Nose & Throat Problems in General Practice.** U. of Colo. Medical Center, Denver
Mar. 16	**Lung Disease.** Academy of Medicine of Cleveland & Cuyahoga County.
Mar. 19 (10 hrs.)	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Mar. 19 (40 hrs.)	**Gastroscopy; Basic Course.** Cook County Graduate School of Medicine, Chicago
Mar. 19-20	**Clinical Cardiology.** University of Kansas Medical Center, Kansas City, Kansas
Mar. 19-21	**Recent Advances in Pharmacology of Anesthetic Agents.** University of Pennsylvania, Philadelphia
Mar. 19-21	**Fourth Annual Spring Postgraduate Assembly.** University of Nebraska College of Medicine, Omaha
Mar. 19-21	**Cardiovascular Diseases for General Physicians.** University of Minnesota Ctr. for Continuation Study, Minneapolis
Mar. 19-22	**Eighth Annual Scientific Assembly, AAGP.** District of Columbia National Guard Armory, Washington, D. C.
Mar. 19-23	**Twenty-fifth Venereal Disease Postgraduate Course for Physicians.** University of Washington School of Medicine, Seattle
Mar. 19-23	**Electrocardiography.** New York University, NYC
Mar. 19-23	**Ophthalmic Pathology.** Armed Forces Institutes of Pathology, Washington, D. C.
Mar. 19-23	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 19-24	**Surgery of the Eye.** New York University, New York City
Mar. 19-24	**Surgery of the Hand.** New York University, New York City
Mar. 19-27	**Radiology of the Chest.** Mt. Sinai Hospital, NYC
Mar. 19-28	**Medical Care of Atomic Casualties.** Walter Reed Army Medical Center, Washington, D. C.
Mar. 19-30	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Mar. 19-30	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 22-23	**Bedside Pediatric Seminar.** University of Nebraska College of Medicine, Omaha
Mar. 23	**Cardiac Arrest.** New York University, NYC
Mar. 24-25	**American Psychosomatic Society.** Sheraton Plaza Hotel, Boston
Mar. 26-27	**Eye Surgery Refresher Course.** University of Toronto
Mar. 26-30	**Pathology of the Oral Regions.** Armed Forces Institutes of Pathology, Washington, D. C.
Mar. 26-30	**Geriatrics.** George Washington University Hospital, Washington, D. C.
Mar. 26-30	**Measurement of Pulmonary Functions in Health and Disease.** Boston City Hospital
Mar. 26-Apr. 6	**General & Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Mar. 27-28	**Symposium on Malignancy (Neurogenic Carcinoma).** Indiana University, Indianapolis
Apr. 1-21	**Pain Syndromes; Diagnosis and Treatment by Regional Block.** University of Pennsylvania, Philadelphia
Apr. 2-4	**Surgery in Acute Trauma.** Valley Forge Army Hosp., Phoenixville, Penna.
Apr. 2-6	**Clinical Neurology.** Mt. Sinai Hospital, NYC
Apr. 2-6	**Clinical Use of Radioactive Iodine.** Cook County Grad. Sch. of Med., Chicago
Apr. 2-6	**Surgery in Acute Trauma.** Madigan Army Hosp., Tacoma; Tripler Army Hosp., Honolulu; Beaumont Army Hosp., Ft. Bliss, Texas; Brooke Army Hosp., Ft. Sam Houston, Texas; Walter Reed Army Med. Ctr., Washington, D. C.; Letterman Army Hosp., San Francisco; Fitzsimons Army Hosp., Denver
Apr. 2-6	**Physical and Occupational Therapy in Poliomyelitis.** Warm Springs, Ga.
Apr. 2-6	**Ophthalmic Plastic Surgery.** New York University, NYC
Apr. 2-7	**Spring Congress in Ophthalmology, Otology, Rhinology, Laryngoscopy, Fascio-maxillary Surgery, Bronchoscopy & Esophagoscopy.** Gill Memorial Hospital, Roanoke, Virginia
Apr. 2-13	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago

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THE 1956 ANNUAL MEETING

In the first dozen pages of this issue of the JOURNAL will be found the program for the 106th Annual Meeting of the Iowa State Medical Society, to be held at the Veterans Memorial Auditorium, in Des Moines, on April 22, 23, 24 and 25, 1956.

Every physician should resolve to attend this year's Annual Meeting, not only for the contribution that the scientific lectures will make to his postgraduate education but for the opportunity he will have to make his point of view felt when the House of Delegates deliberates and makes decisions upon subjects vital to his livelihood. The meetings of that body, as in former years, are scheduled for Sunday afternoon and Wednesday morning, and reference committee meetings, at which a hearing will be given to every interested member, will be held during the interval.

In this year's scientific program, particular emphasis is to be given to problems in the field of job-connected illnesses and injuries. The Society's Subcommittee on Industrial Health has called attention to the fact that income from industrial employment in Iowa recently surpassed income from the sale of farm products. Though Iowa factories are small in comparison with the manufacturing plants in many other states, they are growing more numerous and are starting to present health problems to which large numbers of physicians will need to devote at least part of their time and attention. The Subcommittee would like physicians in Iowa to divest themselves of the notion that industrial medicine consists solely of the care of compensable injuries and hopes that they will take pains to familiarize themselves with the broad program of occupational health that has been outlined by the AMA.

The Committee on Scientific Work has secured a number of authorities on industrial medicine to address this year's Annual Meeting. At the general session on Tuesday morning, Dr. C. Stewart Nash, an otolaryngologic consultant to the Workmen's Compensation Board of the State of New York, will speak on "Industrial Noise and Occupational Deafness"; Dr. Alexander P. Aitken, an orthopedic surgeon who is chairman of the Subcommittee on Industrial Relations of the American College of Surgeons, will speak on "Workmen's Compensation"; and Dr. Leonard F. Weber, of the College of Medicine at the University of Illinois, will speak on "Industrial Dermatoses."

On Tuesday afternoon, a panel discussion of the topic "Occupational Health and Injury" will be presented at a joint meeting of the Medical and Surgical Sections. The participants are to be Dr. Allan K. Harcourt, of the Department of Surgery at the University of Indiana College of Medicine; Mr. Charles F. White, claims service supervisor for the midwest division of The Liberty Mutual Insurance Company; and Mr. Robert Loetscher, of The Farley and Loetscher Company, Dubuque. A question-and-answer period, during which Dr. Aitken as well as the panel members will be available for questioning, will provide members of the Society an opportunity to get variously expert opinions on specific problems and on phases of the subject that may not have been touched upon previously.

The high echelons of national Medicine are to be represented at this year's Annual Meeting by Dr. David B. Allman, of Atlantic City, one of the trustees of the AMA, who is to address the Monday morning general session on "Medicine in a Changing World." The president of the American Academy of General Practice, Dr. John DeTar, of Milan, Michigan, is to discuss "Cancer Detection in the Office of the Generalist" at the general session on Wednesday morning, and the Arthur Erskine Lecture, Tuesday morning, is to be delivered by Dr. Hayes Martin, an associate professor of clinical surgery at the Cornell University College of Medicine, New York City, on the topic "The Diagnostic Significance of a Lump in the Neck."

In the Auditorium at the same time that the ISMS sessions are in progress the Iowa Medical Technologists will hold a seminar on hematology. Be sure that the technologists under your supervision are there, for they are certain to profit from the lectures which Dr. John W. Rebuck, of Henry Ford Hospital, is to deliver.

Perhaps the most newsworthy feature of the scientific exhibits at the 1956 Annual Meeting will be a fresh-tissue demonstration presented jointly by Nebraska and Iowa pathologists. And the Committee on Scientific Work is making every effort to see that all of the displays are manned as nearly constantly as possible so that members of the Society and visitors will have opportunities to discuss them with people who have first-hand knowledge of the work that is represented.

The banquet, which this year is to be held in the Grand Ballroom of the Savery Hotel, promises to be an informative as well as an entertaining occasion. Dr. DeTar, the principal banquet speaker, intends to present evidence of a recent change of tone in popular magazine articles on medical subjects and doctors.

The technical exhibits will be more numerous than ever before, and we want particularly to urge members to devote as much time as possible to them. As everyone knows, it is the technical exhibitors who pay the bills for the Annual Meet-

ing, and in return it is no more than fair that physicians should give careful attention to their displays of products.

Hotel accommodations are certain to be at a premium at the time of this year's Annual Meeting, not only at the Savery, which is the headquarters hotel this year, but at the other ones. To be sure of having the sorts of rooms they want, members are urged to make reservations now.

MEDICAL OFFICERS URGENTLY NEEDED

A great deal of medical knowledge has had its origin in military medicine, and in particular, much of our public health system in the United States has had its foundation in American military medicine. For those reasons, the Armed Forces are entitled to the support of practicing physicians—a greater amount of support than they are getting.

The situation is especially serious in Iowa, for though the Navy programs here are fully staffed, the National Guard and the Army are so badly in need of physicians that their work is being seriously hampered.

In the 34th Division of the Iowa National Guard, nine medical officers are doing work that usually is done by 33. There are vacancies at the regimental and battalion levels, as well as in the 109th Medical Battalion. All physicians under 50 years of age are urged to inquire about the possibilities of their becoming medical officers in the Iowa National Guard at a booth which Dr. John R. Hyde, of Emmetsburg, will set up among the scientific exhibits at the Annual Meeting of the Iowa State Medical Society, April 22-25, in Des Moines.

In the Army's Iowa district, a shortage of physicians has created nearly as serious a difficulty. Of nine medical units that have been authorized for the state, it has been possible to establish only four. The need is for company-grade Medical Corps and Medical Service Corps officers.

Following is a detailed account of the Army's situation as regards medical officers in Iowa:

Numerous benefits accrue to physicians who join one or another of these programs: (1) they participate in military medical activities; (2) they secure advanced medical and surgical training at government expense; (3) they contribute to the building and maintaining of physical fitness in the young citizens of our country; (4) they help to prepare men for national defense and for disaster service; and (5) they make themselves eligible for retirement benefits.

	Officers Authorized	*Officers Assigned*	*Additional Officers Needed*
315th Medical Depot Company	8	6	2
328th Medical Battalion	26	12	14
410th Medical Company	13	9	4
328th Ambulance Company	4	3	1
103rd Div. Hdqtrs. Detachment, Des Moines	3	0	3
103rd Div. Artillery Detachment, Cedar Rapids	2	0	2
328th Engineer Battalion Detachment, Des Moines	2	0	2
495th Engineer Battalion Detachment, Burlington	2	0	2
Clearing Company, 328th Medical Battalion, Des Moines	15	0	15
TOTALS	75	30	45

FUND-RAISING DRIVES

Our attention has been directed to an editorial in the February issue of the JOURNAL OF CHRONIC DISEASES on "Fund Raising for Medical Purposes," and because we found it thought provoking, we propose to summarize it and to make a few observations of our own on the subject.

The editorial contains a reprint of a letter that was sent to the Baltimore SUN by the director of the Maryland chapter of the Arthritis and Rheumatism Foundation, pointing out that if, on the basis of the number of persons who contracted poliomyelitis last year the National Foundation for Infantile Paralysis was entitled to the amount it succeeded in raising—30 cents for every inhabitant—then on the same basis the organization that finances the fight against muscular distrophy should get 60 cents, the one that fights multiple sclerosis should get 75 cents, the one that finances tuberculosis control should get $1.20, the one that combats cerebral palsy should get $1.80, the American Cancer Society should get $2.10, the researchers seeking cures for mental illness are entitled to at least $7.50, and the agencies seeking remedies for heart disease should get $49.

Then, the editorial contains a reprint of the SUN's commentary on that letter. The editors of the newspaper point out, among other things, that many fund-raising organizations, by refusing to join community chests and by insisting on conducting separate campaigns, are dulling the responses of the giving public. In addition, they point out that medical schools get funds from none of the agencies to which the public at large is asked to contribute, and that if the schools continue to be impoverished, the time will come when physicians won't be well enough trained to bring the results of research to the intended beneficiaries, the American people.

The editors of the JOURNAL OF CHRONIC DISEASES, in turn, make their own complaint. They object to the foundations' practice of making research workers strive constantly to create headline news in order to insure the renewal of their grants. There is need, they say, for greater subsidization of basic research.

We have no inclination to disagree, to any major extent, with any of the three statements that we have paraphrased. Of course the executive of the Maryland Arthritis and Rheumatism Foundation

isn't necessarily justified in suggesting that the National Foundation for Infantile Paralysis took more than its rightful share of the American people's money last year. In the first place, the total amount that people might be persuaded to give is unknown. Thus no one is entitled to say what constitutes a particular philanthropy's fair share. In the second, the likelihood of researchers' finding a preventive or a cure for a disease constitutes a good reason for their sharing heavily in the available funds. That, as it happens, was the case with Dr. Jonas Salk and his associates last year. It is our understanding, furthermore, that the National Foundation did not indeed have more money than it needed for the field testing of his vaccine and for the others of its activities. But in general, we willingly grant, free competition in fund raising has appeared to work a hardship upon some altogether worthy causes, and it is infinitely wearing upon the public.

Now it might seem that the obvious solution to the difficulties of which all of these people complain would be the establishment of a national welfare chest, or of 48 such chests, the executives of which would make a solicitation for all welfare purposes and would then dole out money to relief agencies, to youth organizations, to medical and basic science researchers and so forth, in proportion to their presumed needs and deserts.

But the very idea of such an organization becomes less and less attractive as one contemplates it. First, the necessary state or national fund-raising and disbursing authority would rapidly assume the proportions and characteristics of a government, complete with bureaucracy, politics and an inclination to dictate. Second, most of us persist in thinking that the individual who has money to donate surely has the requisite intelligence and should be accorded the privilege of bestowing his money as he sees fit.

If the Arthritis and Rheumatism Foundation and others of the "have not's" wish to join the National Foundation in relative prosperity, they have two alternatives, as things now stand, and they can adopt either or both of them. They can campaign more vigorously, improving the job they have been doing of explaining to people why they are entitled to larger gifts than they have been getting, and/or they can join community chests in the cities where such exist.

As for basic research and medical investigation not sponsored by special foundations, we should prefer to see the federal government take a smaller bite from personal incomes so that state governments might tax more heavily for the support of their medical schools, and to see greater publicity given to the share that the National Fund for Medical Education and its subsidiary the American Medical Education Foundation are taking in the support of both private and state-owned medical schools. There seems to be no reason why the general public, as well as corporations, physicians and physicians' wives, shouldn't be encouraged to give money for medical and basic-science research through them.

CANCER CELL SEEDING

Medical literature reports the frequent local recurrence after "en bloc" removal of some cancers —particularly those of the breast, head and neck, stomach and colon. One cause is thought to be the "seeding" of wounds at the time of surgery, when minute fragments of the tumor may break off, remain in the wound and establish new tumor growth.

Drs. R. R. Smith and A. W. Hilberg, of the National Cancer Institute, have reported the first results of their study of wound washings taken from cases of advanced but operable cancers in the December, 1955, issue of the JOURNAL OF THE NATIONAL CANCER INSTITUTE. In 36 cases studied, microscopic examination revealed cancer cells in 10 instances, and in 5 cases the washings were suspected of containing malignant cells.

In the short period since the start of the study (the longest follow-up period was 21 months) 5 of the 36 cases have developed recurrences of the disease in the operative area. In one of those five, the washing had been suspicious, and in two the washings had not been thought to show any evidence of cancer.

The authors contend that finding tumor cells in 27 per cent of their small series is strong evidence that cancers are indeed reseeded at surgery. But, they point out, "It should also be remembered that not all tumor cells contaminating a wound will grow, so that all cases with positive washings may not develop recurrences."

The finding of clumps of tumor cells in operative wounds is not new. The mechanism—called implantation of cancer—occurs most frequently in cancers for which resection is the usual method of therapy. The authors refer to a series reported upon by other investigators in which local recurrence of head and neck cancers developed in 40 per cent of cases. Summarizing their findings to date, Drs. Smith and Hilberg say that when tumor fragments are identified in wound washings, there is a strong possibility of local recurrence of the tumor in the operative site.

They point out three ways in which implantation of cancer can be prevented, or diminished: (1) gentle, nontraumatic surgery, (2) the use of multiple instruments and (3) maintaining an adequate margin from the limits of the tumor at the time of surgery.

Studies are under way at the National Cancer Institute to develop a means of destroying tumor tissue that may be present in an operative wound, but as yet no chemotherapeutic agent has been discovered that will selectively destroy cancer cells.

BLUE CROSS SERVES FIFTY MILLION

The Blue Cross Plans in North America recently enrolled their fifty millionth member. Here in Iowa, upwards of 700,000 people belong to the two local Plans.

To each of us in the medical profession this unprecedented enrollment is significant. Some of us can remember the "dark thirties" when patient after patient left the hospital without having paid for his care and without having provided the hospital a means of collecting for it elsewhere. And many of us can remember the time when patients refused to enter hospitals because they wouldn't have the means with which to provide themselves adequate care.

The 50,000,000 people who have protected themselves against hospital costs by becoming members of Blue Cross Plans are almost a third of the population of the United States. They need never fear being denied the accommodations and the nursing attention that they need, and they can be sure of being able to pay their way.

As physicians, most of us can claim part of the credit for this record-breaking voluntary movement, for we have recommended Blue Cross to our patients and to our acquaintances. Some of us have served or are serving on Blue Cross boards or committees. All of us have a stake in the future of the Plans.

All of us physicians have a responsibility concerning the future of Blue Cross as a socio-economic institution. We must keep ourselves aware of its goals, and we must give serious thought to its problems.

STATE SOCIETY OFFICERS AND COMMITTEES

Special Report of the Chairman of the Subcommittee on Industrial Health

On January 22-24, 1956, I had the privilege of attending the Sixteenth Annual Congress on Industrial Health, held in Detroit, Michigan, and I should like to report on the first session of that Congress, one at which the members of the AMA Council on Industrial Health were present, along with the chairmen of industrial health committees from about half of the states in the Union. A number of states still have no industrial health committees, and the chairmen present were, for the most part, full-time industrial physicians representing highly industrialized areas of the country.

Reports of the state chairmen, most of which had previously been submitted, were reviewed. The work of the Iowa Subcommittee on Industrial Health was included in those reports, and I had nothing to add. Some of the chairmen from states relatively near Iowa did have some comments to make on their state programs, however. Dr. F. B. Stone, of Illinois, called attention to his state society's detailed study "Medical Relations Under Workmen's Compensation," which he said was the first of its kind to be done by any state. He went on to say, among other things, that the Illinois committee had undertaken to investigate medical testimony in railroad compensation cases and had been instrumental in securing the suspension of one doctor from the Chicago and the Illinois Societies for unethical behavior in that connection.

The industrial health committee chairman from Wisconsin, Dr. Thayer, reported that in his state 85 per cent of industrial medicine is carried on by generalists. He suggested that the members of industrial health committees throughout the country be encouraged (1) to remember that they represent only one of the many special fields among which their state society must divide its attention, (2) to use their own initiative in exploring activities in their field, (3) to take active parts in district industrial health meetings, and (4) to accept speaking engagements secured for them by the Speakers' Bureau. He said that his own committee plans to give increased attention to problems involved in rehabilitating the victims of industrial accidents, and intends to give increased emphasis to its efforts at bringing farmers into its occupational-health and accident-prevention programs.

Dr. Richard Hoag, Michigan's representative, said that although many medical schools offer courses in industrial health, the college of medicine at University of Michigan was the first to set up a professorship of occupational health.

Dr. Preston Barton, of Connecticut, expressed it as his firm belief that various sorts of specialists as members of state industrial health committees as well as general practitioners, should be chosen. He stressed the need for many more doctors in part-time, small-plant industrial medicine, and he placed the responsibility for their instruction at the doorstep of the state society, or more specifically, the industrial health committee.

Dr. Wm. P. Shepard, chairman of the AMA Council, referred to numerous bulletins that are available to state committees. The new "Guiding Principles for the Industrial Nurse" was published in the November 9 issue of J.A.M.A. and in the January issue of INDUSTRIAL MEDICINE AND SURGERY. It will soon be available for distribution in pamphlet form. A report will soon be circulated on studies of 17 union health centers, and ones on medical industrial costs and fee schedules, and on workmen's compensation are already available.

The Council, Dr. Shepard said, is putting more and more stress upon the problems of small employment groups, for 80 per cent of American wage earners are dependent upon part-time industrial physicians.

Although Dr. Shepard failed to mention it, I think that one of the Council's greatest services to state industrial health committees consists of its sponsorship of yearly conferences such as the one on which I have been reporting.

—C. J. LOHMANN, M.D.

President's Page

I want to extend a cordial invitation to all members of the Iowa State Medical Society to attend the 1956 annual meeting which will be held April 23-24-25, Veterans Memorial Auditorium, Des Moines. I want to extend a special invitation for all members to attend the meetings of the House of Delegates which are scheduled for 2:00 p.m., Sunday, April 22, and 7:30 a.m., Wednesday, April 25. At these meetings the future policy of the Iowa State Medical Society will be established and it should be interesting to all physicians to hear the various reports and resolutions presented and discussed.

I want to urge the members to attend the reference committee meetings which will be held probably on Monday morning, April 23. Resolutions and reports presented before the House of Delegates will be referred to these reference committees for study. These will be open hearings, and all physicians are invited to participate.

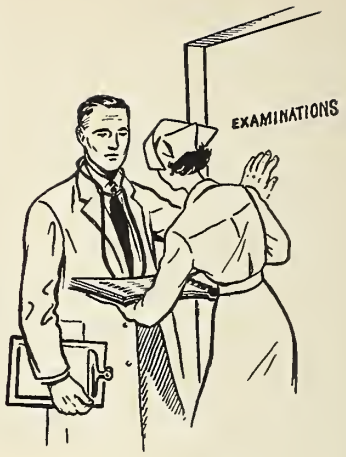
We expect this meeting to be outstanding. The facilities at the Veterans Memorial Auditorium have all been completed, and we have had one year's experience in holding our meeting there. The Program Committee has completed arrangements for the scientific program and in my opinion it is exceptional. It appears in this issue of the Journal; I would suggest that you review it.

I hope those of you who attend the annual meeting will take time between scientific sessions to visit the fine array of technical and scientific exhibits which we have arranged. Your visit to these technical exhibits will be a way of showing appreciation for the financial support of our annual meeting which is provided by these companies. I look forward to seeing all of you in April.

L. R. Offner, M.D.

President

THE DOCTOR'S BUSINESS



If You Were the Patient,

Would *You* Like Your Office?

MILLARD K. MILLS

WATERLOO

When he has entered your reception room, your patient walks to the counter or desk behind which your receptionist sits. There he receives another strong impression of you and of the way in which you practice medicine.

In too many doctors' offices the receptionist sits at a desk that visitors can sit beside, lean across and walk around. In addition, she takes all telephone calls within the hearing of whatever patients may be in the room, and the work on which she is currently engaged is spread upon her desk in full view. Though it may be doubtful that under those circumstances anyone actually gets information to which he is not entitled, a question immediately rises in patients' minds about just how private the doctor is keeping his dealings with the people who consult him.

If you cannot provide a separate business office, at least have a counter built around your receptionist's desk to protect her work from the eyes of patients who come to see you. An arrangement of that sort will not only promote a feeling of confidence in your patients but will facilitate and speed her work. A certain amount of privacy always promotes efficiency.

NEATNESS IS IMPORTANT

A word of caution about your receptionist's desk. Frequently such a girl's desk is kept constantly cluttered. The mail man literally dumps letters and circulars there. The nurse lays one case history after another there. The doctor tosses a letter on top of the pile. Everyone, indeed, finds it the most convenient place in which to put work that is to be done. In addition, the receptionist has her day book, her appointment book and her receipt book, and there they are on top of the desk, regardless of the particular job that is engaging her attention at the moment. It is quite possible that she succeeds in doing accurate work despite this condition, but the patient who has come to see her employer for the first time isn't likely to think that she can.

Let there be a place for everything, and then see to it that everyone cooperates in keeping everything in its place! You may want to provide your receptionist a double file basket or tray to sit on her desk or on top of her file cabinets. Then all incoming work (either by mail or from the back office) can be placed in the "IN" tray, and all completed work (whether for mailing or for filing) can be put into the "OUT" tray. Naturally, if the work is to be kept current, the trays will have to be emptied at the end of each day.

Tops of files and other flat surfaces are as likely to become catchalls as is the receptionist's desk. It seems that they attract books and papers, they become untidy and they actually grow to be menaces, for important documents can be "lost" in the accumulation. Thus, both for efficiency and for neatness, it is essential that all papers be processed and either discarded or filed promptly. Order creates the appearance of efficiency. It is even more important, of course, that true efficiency should back up that orderliness, and we shall take up that problem in another article.

NEATNESS MUST PERVADE YOUR SUITE

What does your patient see when he has been ushered into your consultation room? Is your desk piled high with unread magazines, unanswered letters, advertisements, sample drugs and miscellaneous instruments? Is the furniture scratched or soiled?

If yours is an attractive, well-kept office, your patient will sit back and relax. He will talk to you with confidence and assurance. He will believe that you have things well under control.

Lacking a basis on which to arrive at an informed judgment of your ability as a physician, your patients assume that there is a direct relationship between your efficiency as a housekeeper and your efficiency as a practitioner. A cluttered, "good enough" office makes them doubt the organization and the modernity of your medical procedures. An up-to-date, neat and methodical office, on the other hand, will make them think you well-informed and competent.

Mr. Mills is general manager of Professional Management.

AMA Reports on Opinion Survey

Americans' feelings about their own doctors and about doctors in general have been assessed in a report of a nationwide survey sponsored by the AMA and conducted by an independent opinion and market research firm.

From it emerged a picture of what people like about and expect from their doctors: sympathy, patience, and understanding, rather than guaranteed cures and "wonder drugs." What they criticize is a matter of time and economics, not of personality or ability.

Major items shown by the survey are: (1) Most Americans have their own family doctor; (2) most of them like him, and like doctors as a group; (3) people's opinions gained from their own experience differ from those based on hearsay or other sources; (4) doctors are more critical of themselves than are other people; (5) when people criticize physicians, it is largely for the cost of care; they do not, however, think doctors are trying to "get rich quick"; and (6) they are evenly split for and against "sliding scales" of fees.

Ninety-six per cent of the people who have a family doctor say they like him personally. Between 88 and 98 per cent have high opinions of his intelligence, capability, dedication to humanity, and personal interest in patients. Their most unfavorable comments are that he thinks he is always right, and is hard to reach for emergency calls.

Americans have a good opinion of doctors generally; 93 per cent of all those surveyed say doctors as a group are "likeable." But people are more inclined to think in impersonal terms and to use different standards in judging doctors other than their own. The proportion of favorable attitudes is lower, and denial of faults less emphatic, when they speak of doctors they do not know personally. About doctors in general they are critical mostly of fees, coldness, impatience, lack of frankness, unavailability, and incompetence.

In personal interviews with 4,000 people during 1955, surveyors got the answers to questions based on preliminary discussions with the public and with physicians, and from current literature. The survey was conducted by Ben Gaffin & Associates, Chicago, with interviews by 289 surveyors from United Interviewing Company, an associated group.

Interviewees, were selected so that the proportion of people from various age, economic, geographical, and other groups matched the proportion of such people in the total U. S. population.

Among them were 3,000 private citizens, 500 practicing physicians, 100 editors, commentators, and columnists, 100 attorneys, 100 registered nurses, 100 registered pharmacists, and 100 non-physician executive secretaries of state and county medical societies. Questions about general public attitudes were asked only of the 3,000 individuals; the special groups were asked largely about professional or organizational matters. Doctors were asked their feelings about themselves and other doctors.

Here are some major results:

Five-sixths (82 per cent) of Americans have family doctors. Ninety per cent of rural farm dwellers have their own physicians and high percentages also are found among white collar workers, middle-aged, middle-income, college-trained people, and central state residents.

While two-thirds of these people once had other personal physicians than their present one, their reasons for changing doctors rarely include personality clashes or lack of faith in the doctor's ability. The most frequently given reason (by 19 per cent) is that the patient or the doctor moved. Only one-twentieth say they lost confidence and two per cent that they "found a better doctor."

Most people tend to think of their doctor as "someone special" and feel that today—even more than 20 years ago—it is important to choose the right man. Fifty-eight per cent believe it matters "a lot," giving as reasons "ability, training, and equipment" first and confidence or sincerity next. The 24 per cent who say it doesn't matter explain most often that doctors have the same education and qualifications.

About eight of ten people think their doctor is "different." For their reasons, 32 per cent cite personal interest, sympathy, and kindness; 19 per cent competence, intelligence, and education; 17 per cent friendliness, personality, and manner; and nine per cent frankness and honesty. Small numbers mention availability, patience, understanding, acceptance of payment delays, and lower fees. None mention healing powers or use of wonder drugs, although those who say choice of physicians is not important do mention drug use as a factor.

Of those persons who have a personal physician, only one per cent do not like him and three per cent give qualified or no replies. Ninety-nine per cent say he is capable and 88 per cent "highly intelligent." Between 80 and 90 per cent feel their doctor has enough personal interest, is frank enough, and gives his patients as much time as they would like.

Most people, when speaking of their own doctors, deny complaints listed in a true-false questionnaire.

Only on three statements of complaint was there less than 66 per cent denial, but these three statements were not answered by about half the interviewees. They were:

—Your doctor charges higher fees to people who carry medical insurance: 48 per cent deny, 39 per cent no opinion; your doctor splits fees on referrals to other doctors: 32 per cent deny, 57 per cent no opinion; your doctor gets commissions from

druggists: 31 per cent deny, 52 per cent no opinion.

Most people give the same reasons for liking doctors in general as they do for their own physicians, with some exceptions. They attach more importance to friendliness and manner, healing and curing, dedication, and professional attitude than when describing personal physicians.

Given a chance to criticize, one third have no criticism and 15 per cent "don't know" what they don't like about most doctors. Leading complaint, listed by 13 per cent, is "their charges and interest in money." Nine per cent mentioned each of these complaints: "don't take time and hurry you too much," "impersonal, cold, independent," and "not frank, speak half-truths, dishonest." Some of those listing dislikes say their complaints refer only to "some, not most" doctors.

OPINIONS ABOUT AMA

People apparently do not form their opinions of doctors in general from knowledge of the doctors' professional organization, the AMA, since only half of them say they have any knowledge of it. Those who do chiefly remember general publicity, drug researches, professional standards, conventions, and opposition to government medicine. About a fifth of those who know the AMA remember anything specific about it.

Predominantly favorable attitudes are held by people familiar with the AMA; 43 per cent say their opinion is "all good," 26 per cent that it is "more good than bad," 13 per cent "about equal," four per cent "more bad than good," and one per cent "all bad."

One-fourth of those who know the AMA—and about half of the doctors—believe it is run by minority rule, but few object to this; 69 per cent of those who know the AMA and 77 per cent of the doctors say the organization's policies are what doctors in general want.

Most of these people say the AMA exercises the right amount of control over physicians, and is not "prejudiced" against any particular type of person or doctor (except a few who mention osteopaths and chiropractors). Most people also approve of the strictness of AMA standards for medical schools and hospitals.

Neither public nor doctors is very critical of the AMA's political activities. One-fourth of the public and half the doctors say this activity is "about the right amount"; 15 per cent of the public and 16 per cent of doctors that it is "too much"; four per cent of the public and 19 per cent of the doctors that it is not enough.

With few exceptions, the findings about the total public apply also to sub-groups: men and women, young and old, white and blue collar, and geographically different groups. Some minor differences, tending to be less favorable, are seen in people over 65, non-whites, southerners, low-income groups, non-high-school educated persons, and those without personal physicians.

Interestingly, the percentage differences in opinion between union and non-union persons are almost indistinguishable.

State University of Iowa Clinical Pathologic Conference

(Continued from page 157)

mature than those present in the bony lesions at autopsy. Although multiple areas of bony involvement were found, the bone marrow, where examined between these foci, was free from increased numbers of plasma cells.

The kidneys revealed extensive tubular damage. Most of the tubules were plugged with irregular masses of partially dessicated, hyalinized protein material which often contained cellular debris and crystalline material. Tubular epithelial cells were undergoing a degeneration and necrosis which, in turn, had elicited a subacute inflammatory response. Interstitial fibrosis was prominent, and a few scattered giant cells were noted. Many glomeruli were scarred and hyalinized as a result of the tubular obstruction. The postmortem BUN was 2.5 mg. per cent, and the creatinine was 716 mg. per cent. There were no amyloid deposits in the kidneys or in any other tissues. As a result of the severe kidney disease, secondary hyperplasia of the parathyroid glands had occurred.

All lobes of both lungs showed extensive bronchopneumonia, some necrotizing, with large areas of congestion and edema. A small empyema sac containing 30 cc. of pus was present in the left pleural space, basally. There was no lymphadenopathy, and the liver and spleen were free from plasma-cell infiltrates. E. coli were cultured from heart blood—probably an agonal event—and Aerobachter aerogenes were cultured from the areas of pneumonic consolidation.

The cause of death was renal failure and extensive bronchopneumonia.

NECROPSY DIAGNOSES

Plasma cell myeloma (multiple myeloma) with involvement of bones of skull, sternum, clavicle, ribs and vertebrae
Myeloma kidneys, severe
Uremia
Hyperplasia of parathyroid glands
Necrotizing bronchopneumonia with empyema.

BIBLIOGRAPHY

1. Frick, P. G.: Inhibition of conversion of fibrinogen to fibrin by abnormal proteins in multiple myeloma. Am. J. Path., 25:849-888, (Aug.) 1955.
2. Carson, C. P., Ackerman, L. V., and Maltby, J. D.: Plasma cell myeloma; clinical, pathologic and roentgenologic review of 90 cases. Am. J. Path., 25:1263-1273, (Nov.) 1955.
3. Schwartz, S. O., and Cataldo, M.: Some caprices of multiple myeloma: 15 case reports from study of 75 cases. Ann. Int. Med., 39:1267-1280, (Dec.) 1953.

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

EXPERIMENTAL TUBERCULOSIS: BACILLUS AND HOST, WITH AN ADDENDUM ON LEPROSY (Ciba Foundation Symposium), ed. by *G. E. W. Wolstenholme* and *M. P. Cameron* (Boston, Little, Brown and Company, 1955. $9.00).

ATLAS OF PLASTER CAST TECHNIQUES, by *E. E. Bleck*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $8.00).

MANAGEMENT OF PAIN IN CANCER, ed. by *M. J. Schiffrin*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $4.50).

HANDBOOK OF TOXICOLOGY, Vol. I Acute Toxicities of Solids, Liquids and Gases to Laboratory Animals, ed. by *William S. Spector*. (Philadelphia, W. B. Saunders Company, 1956. $7.00).

PATHOLOGIC PHYSIOLOGY: MECHANISMS OF DISEASE, ed. by *William A. Sodeman*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $13.00).

THE INTERPRETATION OF THE UNIPOLAR ELECTROCARDIOGRAM, by *Gordon B. Myers*, M.D. (St. Louis, The C. V. Mosby Company, 1956. $4.75).

BOOK REVIEWS

CANCER CELLS, by *E. V. Cowdry*, Ph.D. (Philadelphia, W. B. Saunders Company, 1955. $16.00).

Dr. Cowdry, who is an internationally recognized cytologist and medical school teacher, has written an extremely technical book on cancer cells from the viewpoint of a cytologist who has devoted his life to the study of human and animal tissues at the cellular level. The chapters on the structure and function of malignant cells compared to normal cells are excellent. This has been one of Dr. Cowdry's fields of interest for many years.

That this book is an exhaustive study of this phase of cancer biology is indicated by some of the chapter headings: Chapter 3—Cytoplasm of Normal and Malignant Cells Compared. Chapter 4—Nuclei and Division of Normal and Malignant Cells Compared. Chapter 5—Chemical Properties of Cancerous Tissue. Each chapter is concluded with a summary. In the chapter—Cancer Diagnosis and Treatment, the author admits he is writing outside his field.

This book is an excellent source to which one may go for material dealing with specific problems of cancer cells. It is not designed for casual reading.

There is an excellent bibliography of 63 pages, as well as a list of cancer journals, books, symposia and review articles on cancer.—*John W. Green, Jr.*, M.D.

YEAR BOOK OF OBSTETRICS & GYNECOLOGY (1955-1956 Year Book Series), ed. by *J. P. Greenhill*, M.D. (Chicago, The Year Book Publishers, Inc., 1955. $6.00).

Nearly everyone is familiar with the annual series to which this volume belongs and is aware that its contents are arranged under convenient headings so as to provide a quick review of the recent literature on almost any subject related to obstetrics, gynecology, infertility, etc.

There are no particularly new features in this most recent edition, but I might say that the book covers a very wide scope and that the comments of the editor following each of the sections are always informative and entertaining.—*H. Kirby Schiffler*, M.D.

YEAR BOOK OF PEDIATRICS (1955-1956 Year Book Series), ed. by *Sidney S. Gellis*, M.D. (Chicago, The Year Book Publishers, Inc., 1955. $6.00).

This annual selection of abstracts concerning pediatric subjects adds another successful presentation to the Year Book series. The editor has gleaned "the cream of the crop" from the current medical literature in his field. With his comments, and the ones that he has invited other authorities to make, it provides an excellent review for the ever busy practicing physician. —*M. E. Alberts*, M.D.

YEAR BOOK OF MEDICINE (1955-1956 Year Book Series), ed. by *Paul B. Beeson*, M.D., *Carl Muschenheim*, M.D., *W. B. Castle*, M.D., *Tinsley R. Harrison*, M.D., *Franz J. Ingelfinger*, M.D., and *P. K. Bondy*, M.D. (Chicago, The Year Book Publishers, Inc., 1955. $6.00).

The preceding year's literature in the field of internal medicine has been fine-combed by the impressive array of editors of this annual volume, and reports have been grouped under infections, chest, blood and blood-forming organs, and cardiovascular-renal, digestive and metabolic diseases.

The changing pathologic picture of infection since the introduction of chemotherapy and antibiotics is reviewed. The debate over the role of cigarette smoking in pulmonary and heart diseases is weighed. There is a summary of the present status of chemotherapy in leukemia and related disorders. The rapidly expanding knowledge of adrenal cortical function is represented in numerous abstracts.

As in all compendiums, there is a disturbing jerkiness because the reader is made to jump from one briefly treated topic to another. The chapter on chest diseases is made much easier to read by brief summaries preceding the sections on physiology, emphysema and tuberculosis. Similar editorial guideposts could profitably have been used elsewhere in the volume. —*Herman J. Smith*, M.D.

Iowa Academy of General Practice

COOPERATION

Many newspaper and magazine articles nowadays discuss grievances, pet peeves and fees. These articles, of necessity, are prompted by past events, and all too frequently, physicians are responsible either for the incidents themselves or for their becoming public property. They make remarks, sometimes carelessly and sometimes deliberately, in criticism of their colleagues. Such statements ought never to be voiced, even within the ranks of our profession.

The attitude that the public takes toward doctors depends in large measure upon how doctors feel, act and talk regarding one another. If they exhibit mutual cordiality and respect, not only they but the public as well can benefit.

It is equally important for us to remember that in finding fault with something that another physician has done, a doctor more often than not goes beyond the area of his competence. The late Dr. Beye, of the SUI College of Medicine, often told his medical students that unfavorable comments and remarks should never be made because "you never know the original condition or situation."

In scientific meetings, always remember that you can learn something if you pay close attention. In medical business situations, remember that those who differ with you may possibly be right, and that compromise is often the best means for settling arguments and for reconciling clashes of ideas.

Unjust and dangerous comments often result from one doctor's personal dislike for another. To avoid miniature feuds, all that we need to do is to adopt Will Rogers' point of view. When he said, "I never met a man I didn't like," he may not have intended his hearers to think that universal friendliness can be maintained effortlessly. Sometimes we have to work at the job of finding admirable and attractive qualities in our colleagues. But it can be done, and it is emphatically worth doing.

GP LUNCHEON

During the ISMS Annual Meeting, meet your friends for lunch at the Savery Hotel on April 24.

THE ISMS ANNUAL MEETING

The Annual Meeting of the Iowa State Medical Society, at the Veterans Memorial Auditorium in Des Moines April 22-25, 1956, is an important event on the calendars of IAGP members. We fully realize that we are members of the State Society and that we owe loyalty to it in all matters.

The IAGP officers urge all members to attend the State Society meetings, both business and scientific. Listen to the deliberations of the House of Delegates so that you will know what is going on. Attend the annual meeting of Blue Shield so that you may have a better idea of what Blue Shield means to you and what it is attempting to accomplish.

One of the principal guest speakers at this year's Annual Meeting of the Iowa State Medical Society is to be Dr. John DeTar, of Milan, Michigan, president of the American Academy of General Practice.

Meet your friends at the GP Luncheon on April 24 at the Savery Hotel.

AAGP ANNUAL SCIENTIFIC ASSEMBLY

The Annual Scientific Assembly of the AAGP, in Washington, D. C., March 19-22, is a *must* for every Academy member in the state. See GP for the details of the program.

Take your wife along so that she may meet other doctors' wives from all over the country. Remember that they have common problems too, and that they like to "talk shop."

The Iowa Luncheon is to take place on March 20 at the Hotel Statler. Your wife is welcome to attend with you.

Make your hotel reservations as soon as you have read this item!

STUDY CREDIT HOURS

About one-third of the Iowa Chapter members will come up for re-certification this year. Each of that number will be notified at the proper time.

With your 1956 membership card, a request will be sent you for study reports. Please send them to the Iowa Academy's office, 911 Bankers Trust Building, Des Moines 9.

MENTAL ILLNESS

SUICIDE RISKS

For every two automobile accident deaths in the United States, there is one officially recognized suicide. And in San Francisco, for every recognized suicide, there are more than 100 reported attempts. It goes without saying that the actual rates of both successful and unsuccessful suicide must exceed the reported figures, for those who are immediately concerned are always anxious to avoid the stigma that attaches to such acts. And in addition, there are many deaths from natural causes in which the patient's more or less deliberate neglect has played an important role. For example, the loss of the will-to-live tips the balance in many a critical illness. Other people invite death by neglecting their health, by failing to seek medical help, by failing to follow medical advice or by inexcusable recklessness of danger.[1] Three-fourths of violent deaths involve hanging, asphyxiation, shooting or poisoning.

Probably the majority of people have considered suicide at one time or another as a means of controlling their fates. Thus, the initial problem is to predict who is going to make a serious suicidal attempt, and then to manage him until the danger has passed. The threat of self-destruction can be a symptom of any one of a considerable number of disorders, and though it is impossible to hospitalize everyone whom one suspects of having such an idea, one should do whatever he can to protect the patient against himself.

The most numerous suicidal individuals are those who behave as if their goal in life were to be universally spiteful and vengeful, to get attention, to control the people around them, to be dramatic and to gain sympathy. Their suicidal gestures are impulsive and they employ, or at least threaten to employ whatever method is handiest. They may not actually desire to kill themselves, but they may nevertheless succeed if the method that they chance upon is truly lethal. People of this sort usually do not require hospitalization or other surveillance. Indeed any show of anxious concern or anger by the physician will supply them with the attention that they have been seeking and will provoke repetitions of the self-threatening behavior. The doctor must, instead, deal with the matter calmly, for only by that means can he come to understand the patient's motivation and to help him mature.

Certain conditions in which suicide is common require hospitalization irrespective of the suicidal risk. They include delirium, schizophrenia, paranoid states and severe cases of panic.

Depressions are of special importance to the physician because they are common, because they are usually quite easy to recognize, because they vary in nature and degree, because they cannot all be hospitalized, because generally they can be effectively treated and because they present a serious suicidal resk more frequently than does any other type of disorder.

Manic-depressive and involutional depressive patients who have intractable insomnia, anorexia, weight loss, loss of interest and suicidal rumination should be put into a closed hospital ward as quickly as possible, or should be carefully supervised if outpatient electrotherapy seems more desirable.

In the mild types of mood depression, the suicide risk may or may not appear to be attributable to an external event, but it can be minimized if the physician will make repeated inquiries into the course of the depression. These inquiries should continue, even though such preparations as amobarbital combined with d-amphetomine have seemed to restore the patient's mood to normal. One should remember that the medical risk is increased (1) as the depression becomes chronic, (2) if the discussion of suicide is attended by hopelessness, rather than drama, (3) if anorexia, insomnia and weight loss develop, (4) if delusions appear, (5) if the patient has made some serious attempts at suicide, (6) if he is early in the recovery phase, and (7) if either the patient or the world as he perceives it seems changed and unreal.[2]

A patient who presents a serious suicidal risk is, of course, as much of a medical problem as is one who has any of several other acute conditions. His mood depression so distorts his judgment that it behooves the physician to institute pharmacotherapy and/or hospitalization, rather than to tell himself that no one has the right to limit the rights of another human being. Few patients are more grateful than those who have been protected from themselves during a depression.

REFERENCES

1. Moench, Louis G.: Office Psychiatry: The Management of the Emotionally & Mentally Disturbed Patient. Chicago, The Yearbook Publishers, Inc., 1952.
2. Levine, Maurice: Psychotherapy in Medical Practice. New York, Macmillan, 1942.

WRITE AT ONCE

to the hotel of your choice, so as to be sure of having room reservations for

THE ANNUAL MEETING OF THE IOWA STATE MEDICAL SOCIETY

April 22-25, 1956
Des Moines

Coming Meetings

(Continued from page 158)

Apr. 2-13	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Apr. 2-13	**Pediatrics.** Cook County Graduate School of Medicine, Chicago
Apr. 2-27	**Clinical Surgery.** New York Polyclinic Medical School, NYC
Apr. 2-27	**Clinical & Operative (cadaver) Surgery.** New York Polyclinic Medical School, NYC
Apr. 7	**Trauma for General Physicians.** U. of Minnesota Ctr. for Continuation Study, Minneapolis
Apr. 8-11	**Annual Meeting, Missouri State Medical Association.** Hotel Jefferson, St. Louis
Apr. 9 (10 hrs.)	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 9-11	**Clinical Reviews.** Mayo Clinic, Rochester, Minnesota
Apr. 9-11	**Endocrinology for General Physicians.** U. of Minnesota Ctr. for Continuation Study, Minneapolis
Apr. 9-13	**Ophthalmology and Otolaryngology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 9-13	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Apr. 9-20	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 9-20	**Pediatrics (Intensive Review Course).** Cook County Graduate School of Medicine, Chicago
Apr. 10-11	**Office Psychiatry for General Physicians.** U. of Nebraska College of Medicine, Omaha
Apr. 10-13	**Postgraduate Institute of Philadelphia County Medical Society.** Bellevue-Stratford Hotel, Philadelphia
Apr. 12-13	**Industrial Medicine.** Tulane University School of Medicine, New Orleans
Apr. 12-14	**Gynecology for Specialists.** U. of Minnesota Center for Continuation Study, Minneapolis
Apr. 15-17	**Obstetrics-Pediatrics.** New York University, NYC
Apr. 15-17	**Graduate Instructional Course, American College of Allergists.** Hotel New Yorker, NYC
Apr. 15-21	**Pan-American Medical Association,** Mexico City
Apr. 16-18	**Anesthesiology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 16-18	**Radiology for General Physicians.** U. of Minnesota Ctr. for Continuation Study, Minneapolis
Apr. 16-20	**Electrocardiography.** Beth-Israel Hospital, Boston
Apr. 16-20	**Annual Meeting, American College of Physicians.** Los Angeles
Apr. 16-20	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 16-20	**Gastroenterology.** Mt. Sinai Hospital, NYC
Apr. 16-27	**Office & Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Apr. 16-27	**Urology.** Cook County Graduate School of Medicine, Chicago
Apr. 16-27	**Pediatric Refresher Course.** New York University, NYC
Apr. 16-27	**Radiological Health—Basic Course.** Taft Sanitary Engineering Center, Cincinnati
Apr. 16-27	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Apr. 16-May 4	**Cerebral Palsy.** Columbia-Presbyterian Medical Center, NYC
Apr. 16-May 11	**Basic Course in Radioisotopes.** Oak Ridge Inst. of Nuclear Studies, Oak Ridge, Tennessee
Apr. 18	**First Annual Trauma Day.** U. of Nebraska College of Medicine, Omaha
Apr. 18-20	**Twelfth Annual Meeting, American College of Allergists.** Hotel New Yorker, NYC
Apr. 20	**Pain From the Standpoint of Pathology, Physiology & Pharmacology.** Academy of Medicine of Cleveland, 2000 Adelbert Road, Cleveland 6
Apr. 20-21	**Urologic Problems in General Practice.** U. of Colo. Med. Ctr., Denver
Apr. 22-29	**Centennial Anniversary Program, Hawaii Medical Association.** Honolulu
Apr. 23-25	**Ophthalmology.** University of Michigan College of Medicine, Ann Arbor
Apr. 23-27	**Anesthesia.** U. of Buffalo School of Medicine, Buffalo
Apr. 23-29	**Gynecology for General Practitioners.** State University of New York, Syracuse
Apr. 25-27	**Fractures & Dislocations.** University of Tennessee, Memphis
Apr. 23-May 4	**General Surgery.** Cook County Graduate School of Medicine, Chicago

NFME MAKES ANNUAL GIFTS

The National Fund for Medical Education announced on February 9 that its 1955 gift to the SUI College of Medicine amounted to $42,402. Total grants to the nation's 81 medical schools for 1955 were $2,657,000.

Fifty-eight per cent of the money was contributed by corporations, through the Fund's Committee of American Industry, and the balance by physicians and medical society Auxiliaries through the American Medical Education Foundation.

This is the largest annual award in the Fund's history—22 per cent greater than in 1954—and brings to $9,589,490.03 the total awarded by the Fund since 1951, the first year in which grants were made. The total so far given to SUI is $143,329.

Each of the 75 four-year schools received a lump sum of $15,000, plus $30 per undergraduate medical student. Each of the six two-year schools received $7,500, plus $30 per student. Added to those grants were the gifts of individual doctors to designated schools.

Fund grants are unrestricted, except for the provision that they cannot be used for erecting buildings. The money is used primarily to raise teachers' salaries, fill faculty vacancies and open courses in new subject-matter areas. Lack of funds hits the schools in their most sensitive spot: the student-teacher ratio. Medical training requires close personal supervision, and the more advanced the training, the more individual instruction is needed. At present, one in every 16 full-time faculty posts is vacant.

Industry's support of medical education has mounted steadily since 1949, when the Fund was set up. Last year, 1,532 corporations contributed to the Fund, as compared with 1,129 in 1954.

MIDWEST NEUROSURGICAL SOCIETY

The Midwest Neurosurgical Society will hold a meeting on April 6, at the Des Moines Club, in Des Moines. The principal subject of the program is to be "Methods of Visualization in Neurosurgical Diagnosis."

SUI CHANGES SHORT COURSE DATES

The Dean of Postgraduate Studies at the SUI College of Medicine has announced a second change in the dates for the short course in urology at Iowa City. It now is to be held on March 16 and 17, and a short course on diseases of the heart, lungs and blood vessels will take its place on March 22 and 23.

Attend the Blue Shield Participating Physicians' Session at the ISMS Annual Meeting, April 23, 5:00 p.m., South Room, Veterans' Auditorium.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

POLIOMYELITIS IN IOWA, 1955, CHILDREN AGED 5 THROUGH 9

Final Tabulation, February 6, 1956

	Vaccinated (one or more injections of Salk Poliomyelitis Vaccine)		*Unvaccinated*		*Totals*		
Age	*Paralytic*	*Non-paralytic*	*Paralytic*	*Non-paralytic*	*Paralytic*	*Non-paralytic*	*Total*
5			5	24	5	24	29
6		2	4	18	4	20	24
7	1*	21		6	1	27	28
8	2**	10	1	7	3	17	20
9		4	5	11	5	15	20
	3	27	15	66	18	103	121

* Onset one month after first injection. Vaccination site was left arm. Temporary paralysis of right leg. Complete recovery reported December 27, 1955.

** Onset of one case occurred five weeks after first injection. Paralysis of legs. Reported making good recovery on December 27, 1955. The other case had onset six weeks after first injection. Complete recovery is anticipated.

POLIOMYELITIS IN IOWA, 1954, CHILDREN AGED 5 THROUGH 9

Age	*Paralytic*	*Non-paralytic*	*Unspecified*	*Total*
5	22	57	21	100
6	25	44	13	82
7	25	44	21	90
8	17	22	9	48
9	16	30	6	52
	105	197	70	372

The first of the accompanying charts includes the 121 cases of poliomyelitis reported in children aged 5 through 9 in Iowa during 1955. Over 90 per cent of Iowa youngsters in the 7-8 year age group had been given one or two injections of the Salk poliomyelitis vaccine during the school program in the spring of 1955. Although three cases of paralytic poliomyelitis occurred in the children who had been so vaccinated, none of them was a serious case. One of the four children nine years old who is listed as having contracted the disease despite having been vaccinated had been given the vaccine during the Iowa Field Trial Studies in 1954.

The second chart shows the case distribution in the same age group for the year 1954. For 1955, the total number of accepted cases of poliomyelitis (all ages) was 556, whereas in 1954 it had been 1,445.

The exact per cent of reduction in poliomyelitis due to the use of the Salk vaccine cannot be stated until it has been figured on the basis of the number of children and the number of cases in each age group. That data will be forthcoming.

ARTERIOSCLEROSIS AND ATHEROSCLEROSIS

There is need for clarification of the two terms that are used in connection with hardening of the arteries.

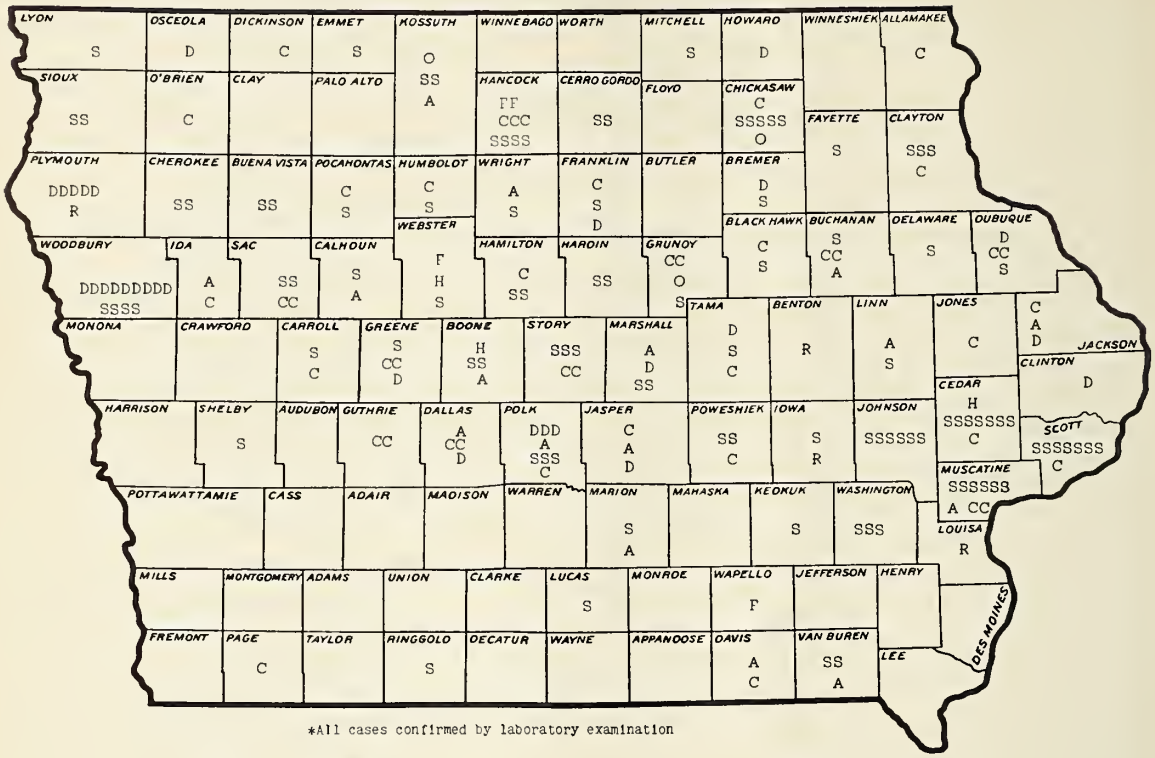
Arteriosclerosis is a generic term, and the phenomenon that it designates is largely a consequence of aging. Such a disability may occur early in maturity, and when it does, it hastens the aging of the individual. The increased firmness of the blood vessels is due to a fibrous change in the outer and muscular or elastic coats of the blood vessels. Occationally a deposition of calcium or lime salts occurs. This condition involves great lengths of blood vessels, it is usually bilateral, and it causes dilatation and tortuosity. Examples are to be seen in the tortuous temporal arteries on the sides of the foreheads, on the backs of the hands and on the tops of the feet of many elderly people.

Atherosclerosis, however, designates a disease of the arteries, one which occurs in patchy form and involves mainly the coronary arteries furnishing blood to the heart muscle, the aorta, the large artery which connects the heart with the chest and abdomen, and the arteries of the brain and lower extremities.

In the areas involved, the inner lining of the artery is changed to a fatty or mushy (athero) substance in which cholesterol and fatty crystals are deposited. Cholesterol is a fat-like substance found in all animal fats and oils, bile, blood, milk, yolk of egg, liver, kidneys, brain and suprarenal bodies.

Atherosclerosis is the principal cause of coronary heart disease, and the size of the blood vessel that is involved determines the extent of damage to the heart muscle. In the lower extremities, gangrene results from the stoppage of the supply artery. When the vessels of the brain are involved, throm-

RABIES IN ANIMALS IN IOWA, 1955
County Distribution of Reported Cases



*All cases confirmed by laboratory examination

Legend	*Cases*
S—skunk	98
C—cattle	43
D—dog	28
A—cat	16
F—fox	4
R—raccoon	4
H—hog	4
O—horse	3
TOTAL	200

bosis or hemorrhage leads to one of the forms of stroke or apoplexy.

The cause of atherosclerosis has engaged the intensive research of leading investigators throughout the world without definite results except for the evolution of the general concept that it is the consequence of a disturbance in the metabolism of the various fats contained in the patient's diet.

That concept is supported by the observation that coronary artery disease of the heart is most frequent in persons whose diet is rich in fats and cholesterol. On the other hand, underprivileged people such as those orientals who subsist largely on rice and other vegetables much less frequently are afflicted with coronary heart disease. Heredity plays a role, and the disease occurs more frequently among men than among women.

Although the trend of research at present suggests that dietary prescriptions and proscriptions may eventually become the means of preventing atherosclerosis, it is too early for anyone to suggest that masses of people should change their eating habits, just as it is unwise for any layman to do so, except upon the advice of a physician.

The greatest hope for patients with atherosclerosis lies in the early recognition of their disease and upon their living under the direction of a physician.

EFFECTIVE ORAL INSULIN IS NEAR

A clinically useful oral insulin, called Orinase, has been developed by the Upjohn Company and is currently being tested. This revelation was made in a letter, copies of which were distributed to physicians throughout the country who attended showings of the firm's closed-circuit telecast "Grand Rounds" on February 15.

"The facts," the letter said, "are these: A bacteriostatically inert aryl sulfonylurea originally synthetized in Germany and now being intensively studied in this country has been found to produce hypoglycemia in intact animals, but not in depancreatinized or alloxan-diabetic animals. Preliminary observations show that this compound is also orally effective in reducing hyperglycemia and glycosuria in patients with the adult form of diabetes mellitus. Less consistently beneficial effects can probably be expected in the juvenile type of diabetes, judging from observations known to date. The mechanism of this hypoglycemic action remains to be clarified."

The Upjohn Company predicts that many months will elapse before the clinical tests can be completed. In the meantime, studies on Orinase will appear in the medical literature.

WOMAN'S AUXILIARY

to the

IOWA STATE MEDICAL SOCIETY

1956 Annual Meeting, Des Moines

PROGRAM

MRS. C. H. FLYNN, *Presiding*

Sunday, April 22

2:00-4:00 Pre-convention Board Meeting, East Room, Hotel Savery—State Officers, Councilors, County Presidents & Committee Chairmen

6:30 Dutch Treat Supper (all board members and husbands), Des Moines Golf & Country Club

Monday, April 23

8:30-4:00 Registration, Mezzanine, Hotel Savery—All physicians' wives welcome

8:30-11:00 Hospitality Room, East Room, Hotel Savery

8:30-9:30 President's Coffee, Hospitality Room. This is your opportunity to meet your state officers

9:45 Conference of Delegates—Terrace Room, Hotel Savery—All physicians' wives welcome

Call to Order—Mrs. C. H. Flynn, president, XI

Invocation—Reverend Lloyd J. Connelly

Auxiliary Pledge—"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation and ever sustain its high ideals."

Introduction of National Auxiliary Representative, Mrs. J. M. Chenault, Decatur, Alabama, national chairman of Program Committee

Roll Call of Voting Delegates—Mrs. R. P. Mason, secretary, V

Reading and Adoption of Convention Rules—Mrs. H. C. Merillat, V

Recommendations of Reading Committee (for acceptance of previous annual meeting minutes)

Treasurer's Report—Mrs. E. A. Vorisek, V

Report of Finance Committee—Mrs. D. C. Wirtz, V

Report of Auditing Committee—Mrs. D. C. Wirtz, V

Report of Revisions Committee—Mrs. W. A. Seidler, V

Introduction of Councilors, County Presidents and Committee Chairmen

Report of Nominating Committee (First Reading)—Mrs. K. M. Chapler, V

Election of Nominating Committee for 1957

In Memoriam—

11:00 Presentation of Future Nurses—Mrs. E. A. Larsen, IX

"Nursing—A Look to the Future"—Dean Myrtle Kitchell, University of Iowa School of Nursing

12:15 Spring Luncheon, Terrace Room, Hotel Savery, Mrs. C. H. Flynn, presiding

Luncheon Music—Mrs. K. M. Chapler, V

Greetings—Mrs. R. E. Hines, president Polk County Auxiliary, V

Response—Mrs. D. H. King, president-elect, III

Introduction of Convention Committee Chairmen—Mrs. H. C. Merillat, V

1:45 "South American Mosaic"—Mrs. Bernice Setzer, Art Supervisor, Des Moines Public Schools

3:00-5:00 Tea—Governor's Mansion, 2900 Grand Avenue—All physician's wives are invited. Busses leave Hotel Savery at 2:45 p.m.

9:00-12:00 Spring Frolic (Informal), Terrace Room, Hotel Savery (Benefit—Nurses' Loan Fund)

Tuesday, April 24

8:30-12:00 Registration, Mezzanine Floor, Hotel Savery

8:30-9:30 President's Coffee, Hospitality Room—Another opportunity to meet your state officers

8:30-11:00 Coffee—Hospitality Room, East Room, Hotel Savery

9:45 Conference of Delegates—Terrace Room—All physicians' wives are invited

Roll Call of Voting Delegates—Mrs. R. P. Mason, secretary, V

Report of Nominating Committee (Second Reading)—Mrs. K. M. Chapler, V

Election Instructions—Mrs. J. A. Downing, Parlimentarian, V

Election of Officers

Election of Delegates to National Auxiliary Convention

Introduction of New Officers

Report of Reference Committee

11:00 Medical Legislation—Robert B. Throckmorton, Legislative Council

11:30 School of Instruction for Councilors and County Presidents, East Room, Hotel Savery—president-elect

12:15 President's Luncheon—Terrace Room

Invocation Solo: "The Lord's Prayer"—Miss Gail Flynn

Concert Chorus—Roosevelt High School, Des Moines

Introduction of Guests:

L. A. Coffin, M.D., president of the Iowa State Medical Society

W. L. Downing, M.D., president-elect of the Iowa State Medical Society

Fred Sternagel, M.D., member of the Advisory Board

P. W. Brecher, M.D., member of the Advisory Board

R. F. Birge, M.D., secretary of the Iowa State Medical Society

Donald L. Taylor, executive secretary of the Iowa State Medical Society

D. B. Allman, M.D., trustee of the American Medical Association

Mrs. J. M. Chenault, Woman's Auxiliary national program chairman
Installation of Officers—Mrs. J. M. Chenault
Inaugural Address—Mrs. D. H. King, III
Presentation of Past-President's Pin—Mrs. L. R. Hegg, III
Report of Achievement Awards Committee—Mrs. L. R. Hegg, III
Report of Exhibit Contest—Mrs. S. P. Leinbach, II
Courtesy Resolutions
Adjournment

2:30 Style Show—"Spring Fashions"—Norman Cassiday, Inc.
4:00 Post-Convention Board Meeting, East Room, Hotel Savery—Mrs. D. H. King, presiding
7:00 Banquet, Ball Room, Hotel Savery

Roman numerals represent councilor districts.

FUTURE NURSES CLUBS

Monday, April 23

8:00 Registration, Des Moines Room, Hotel Savery
9:00 Style Show—"Uniforms of Nursing Schools of Iowa" modeled by Future Nurses
11:00 Presentation of Clubs to Woman's Auxiliary, Terrace Room
"Nursing—A Look to the Future"—Dean Myrtle Kitchell, University of Iowa School of Nursing
12:00 Luncheon
1:00 Tour—Iowa Methodist and Blank Memorial Hospitals

LINES FROM THE PRESIDENT

Thank you for your promptness in submitting your lists of new officers. To conform with the decision of the State Board, 1955-1956 officers should hold their posts through the Annual Meeting in April so that each may have an opportunity to report on the whole of her Auxiliary year. New officers should be installed in May (see "Responsibilities of County Auxiliaries," on page 28 of the 1955-1956 YEARBOOK). County treasurers should now send their annual reports to the state treasurer, Mrs. E. A. Vorisek.

Our Annual Meeting is near at hand. *Please elect your delegates.* Each county Auxiliary is entitled to one delegate for each 25 members or major share thereof, provided, however, that each county Auxiliary shall have at least one voting delegate in addition to its president. Those members who have places on the Board of Directors are also delegates.

A conference of delegates is a new feature that is to be instituted at this year's Annual Meeting. We hope that it will be possible for the delegates to transact all business during that session so that the pleasure and sociability of luncheon time will not need to be interrupted. If that plan is to succeed, you must cooperate by seeing to it that a delegate or her alternate attends all business sessions. It is important that you send delegates' names to Mrs. Robert P. Mason, state secretary, now!

Send a list of the activities of your Future Nurses Club to Mrs. E. A. Larsen, at Centerville, soon. Decide upon making a memorial gift to the Nurses' Loan Fund, and send it to Mrs. B. F. Howar, 1428 Des Moines Street, Webster City.

Your necrology list, along with short biographical sketches if possible, must reach me soon.

Our TODAY'S HEALTH rating is far below what it must be if we are to achieve the 100 per cent to which we aspire. Send in gift subscriptions, encourage your Future Nurses Club to sell subscriptions as a means of raising money, encourage your church groups to do likewise, introduce the magazine to the physical education teachers in your schools, and see to it that it is available in your husband's waiting room, in libraries and hospitals, and in the reception rooms of dentists, cosmetologists and nursing homes. We have 535 credits, but we need 1,016 if we are to reach 100 per cent. Help us do it!

Do your share in helping with the 80 Dimes campaign for A.M.E.F.

Let's begin our spring activities with a district meeting, and let's help to organize new Auxiliaries in neighboring, unorganized counties.

You will be receiving Achievement Award sheets. Help your county president prepare your county's report by telling her of your civic, church and social activities, as well as the things you have done for the Auxiliary.

In this issue, you will find our program for the Annual Meeting in April. Read it, and plan to attend as many meetings as you can. Plan your activities in advance. I shall be looking forward to meeting new friends and to renewing old friendships there.

MRS. CHARLES H. FLYNN
President

ACHIEVEMENT AWARDS FOR 1955-1956

Make certain that your county is represented when awards for achievement are given at the Annual Meeting. Don't hide your light under a bushel! Let everyone know what you have done!

Awards will be made to counties in the following categories: (1) small (1-18 members); (2) medium (19 to 49 members); (3) large (50 or more members).

Judging will be based on the following:

(1) Reports from the county covering activities from February 1, 1955, to February 1, 1956. The reports must have reached the president by March 1.

(2) Organization: (a) number of new members, (b) number of members-at-large secured from the State Auxiliary, (c) number of members in attendance at the Annual Meeting, (d) record of attendance at State Board meetings, (e) number of members in attendance at district meetings, (f) number of county meetings held.

(3) State projects: (a) nurse recruitment, (b) contribution to state Nurses' Loan Fund, (c) number of

girls from the county who have entered nurse's training, (d) number of Future Nurses Clubs in the county and number of girls in them, (e) TODAY'S HEALTH promotion record, (f) handicapped craft sales, (g) AMEF contributions, (h) BULLETIN subscriptions, (i) county's entry in State Exhibit Contest, (j) participation in Doctor's Day observance.

(4) Miscellaneous community work.

Send your score sheet to Mrs. Lester Hegg, chairman, Rock Valley, before April 14.

COUNTY AUXILIARIES

Boone

The Boone County Auxiliary met on January 10 at the Lincoln Restaurant, and after luncheon a short business session was conducted by the president, Mrs. Ross E. Gunn.

Mrs. Ralph L. Wicks spoke to the group on the subject "Retarded Children."

The Auxiliary made a contribution to the AMEF in memory of the late Dr. Edward Myers.

Cass

The Cass County Medical Auxiliary held its January meeting at the Hotel Whitney, in Atlantic. A résumé of the year's work done by the 12-member group showed that each was a subscriber to TODAY'S HEALTH and that the group had been responsible for the selling of 41 subscriptions in all. The Auxiliary's pledge of $500 to the Atlantic Memorial Hospital was paid in full.

Mrs. Richard Crotty, of Omaha, was guest speaker.

The following were elected officers for 1956: Mrs. Ralph Moe, Griswold, president; Mrs. L. L. Long, Atlantic, vice-president; Mrs. Dwain Wilcox, Atlantic, secretary-treasurer and TODAY'S HEALTH chairman.

Dallas-Guthrie

The Woman's Auxiliary to the Dallas-Guthrie Medical Society met for luncheon January 19 at the Memorial Hall in Dallas Center. During the business session, it was decided that the chapter should add 50 cents to its membership dues and to earmark that amount for the Nurses' Loan Fund.

Mrs. Charles Flynn, state president, was a guest, and she gave a very inspirational talk to the members.

The following officers have been elected for 1956: Mrs. William Castles, president; Mrs. D. W. Todd, president-elect; Mrs. E. E. Lister, first vice-president; Mrs. H. W. Smith, second vice-president; Mrs. Charles E. Porter, secretary; and Mrs. W. A. Seidler, Jr., treasurer.

Emmet

The Emmet County Auxiliary met in December for a final meeting of the year. The following officers were elected: Mrs. Claire Lindholm, Armstrong, president; Mrs. Russell Cox, Estherville, secretary-treasurer.

Mahaska

The Mahaska County Medical Auxiliary met at the Downing Hotel, Oskaloosa, on Tuesday, January 10, for a one o'clock luncheon.

Mrs. George Atkinson, president, conducted the routine business session. Mrs. Sidney Smith reported on subscriptions to TODAY'S HEALTH magazine. The group voted to give a one year's subscription to the Future Nurses Club.

The Auxiliary has "adopted" a needy family; Mrs. Leroy Catterson and Mrs. Howard Bos were appointed a committee to take charge of this welfare project.

Sioux

The new officers of the Sioux County Auxiliary are Mrs. C. B. Murphy, Alton, president; Mrs. Dick Van Eldick, Orange City, vice-president; Mrs. E. B. Grossman, Orange City, secretary-treasurer.



NEWS AND VIEWS

March is the month of conflict. Beguiling warm days alternate with cold and blustery ones as Nature throws off the bondage of winter. But all of us can detect in ourselves a feeling of expectancy, as if new hope were riding in upon the capricious winds. Let it snow, let it rain, or sleet or hail—it doesn't matter. Our hearts tell us that spring is here.

Newly elected officers feel pride and anticipation as they prepare for their tasks. Their fresh enthusiasms and their new ideas give the Auxiliary added life. We wish them well!

We understand the feeling of relief that the retiring officers have as they prepare to lay down their responsibilities. Each of them regrets that

she couldn't have done more, and each of them feels sadness for no reason at all.

A year passes swiftly. No one ever quite realizes her dreams or accomplishes all that she had hoped to accomplish during the first excitement of beginning. But each in a special way contributes something of lasting value. And so we progress.

* * * *

Watch your newspaper for announcements of the new TV program called "Baby Time." It concerns baby-sitters as well as infants, and will contain references to our national Auxiliary project "GEMS" (good emergency mother substitutes). This series began in February over a national hook-up.

* * * *

Have you made plans to observe Doctor's Day on March 30 of this year? Give your doctor a red carnation, if nothing else.

* * * *

"Happiness?—that's nothing more than good health and a poor memory."

—ALBERT SCHWEITZER

* * * *

"At top efficiency, your nose probably can detect as little as two trillionths of a gram of a strong-smelling chemical, and it can differentiate tens of thousands of different odors. Even a casual whiff of fragrance can resurrect the dim past, bring back memories with remarkable vividness. And odors, often without our realizing it, profoundly affect our actions. . . ."

—TODAY'S HEALTH

COUNTY SOCIETIES

Cerro Gordo

Dr. F. W. Kapke, president of the Cerro Gordo County Medical Society, presented a check for $1,000 from the Society to the Mason City Mental Health Center on January 25.

Clayton

New officers of the Clayton County Medical Society elected on January 20 are Dr. James J. Hea, Jr., of Guttenberg, president; and Dr. John Lyon, of McGregor, secretary. Dr. H. W. Hudek, of Garnavillo, was made honorary president, and he and Dr. C. W. Palmer, of Guttenberg, were nominated for life membership in the AMA.

Davis

Dr. John R. Scheibe has been elected president of the Davis County Medical Society for 1956. Other officers include Dr. E. O. Gilfillan, vice-president; Dr. W. D. Haufe, secretary; and Drs. P. T. Meyers and S. R. Jaskunas, delegate and alternate. All of them practice in Bloomfield.

Des Moines

At the February 14 meeting of the Des Moines County Medical Society, Dr. Edward A. Hanske conducted a clinicopathologic conference.

Fayette

Dr. William J. Wolf, of West Union, has been elected president of the Fayette County Medical Society, and Drs. L. E. Ketner and H. C. Hallberg, of Oelwein, have been elected vice-president and secretary-treasurer, respectively.

Johnson

Dr. John S. Greenleaf is the new president of of the Johnson County Medical Society, Dr. John H. Randall is vice-president, and Dr. John R. Maxwell is secretary-treasurer.

At the February 1 meeting of the Society, the scientific program consisted of a symposium on "Treatment of Patients With Incurable Cancer." For the scientific program at the March 7 meeting, at the Mayflower Hotel, Iowa City, the topic is to be "Clinical Uses of Pulmonary Function Tests," and the speakers will be Drs. George Bedell, William Hamilton and Gwilym Lodwick. Dr. Paul Seebohm will be moderator.

Linn

At the February 9 meeting of the Linn County Medical Society, Dr. John H. Randall, head of the Department of Obstetrics & Gynecology at SUI, spoke on "Recent Trends in Cesarean Section."

At the March 8 meeting, to be held at the Montrose Hotel in Cedar Rapids, Dr. Hugh Smith, of the Campbell Clinic, Memphis, Tennessee, will speak on "Prevalent Complications of Fractures."

Mahaska

Officers of the Mahaska County Medical Society for 1956 are Dr. Kenneth Lemon, president; Dr. George Atkinson, vice-president; Dr. Sidney Smith, secretary; Dr. Robert Collison, treasurer; Dr. G. W. Bennett, delegate; and Dr. Robert L. Alberti, alternate.

Montgomery

Dr. Maurice P. Margules, a Council Bluffs neurosurgeon, addressed the Montgomery County Medical Society January 10 on "Low Back Pain."

Dr. Dallas York and Dr. Edward Croxdale, both of Villisca, were installed as president and secretary-treasurer of the Society at that meeting.

Osceola

Dr. H. B. Paulsen, of Harris, was elected president of the Osceola Cohnty Medical Society on January 12. Dr. T. J. Carroll, of Sibley, was elected secretary-treasurer, and Dr. Carroll and Dr. F. B. O'Leary, of Sibley, were named delegate and alternate, respectively.

Polk

At the meeting of the Polk County Medical Society held at the Des Moines Golf & Country Club on January 18 Dr. Walter D. Abbott was installed as president; Dr. Byron Merkel was named president-elect; Dr. Richard F. Birge was made a trustee; Dr. Daniel F. Crowley, Jr., was elected councilor-at-large; and Dr. Thomas A. Bond was reelected secretary-treasurer. Life memberships were conferred upon Dr. Thomas A. Burcham, Sr., Dr. Malcolm A. Royal and Dr. Robert L. Parker.

At the meeting to be held in the Savery Hotel on March 21, Dr. Gunnar Heuser, of the Institute of Experimental Medicine at the University of Montreal, will speak on "Stress."

Scott

Dr. Raymond Jackman, head of the Department of Proctology at the Mayo Clinic and associate professor of proctology at the University of Minnesota, spoke on "Causes of Bleeding from the Large Intestine" at the February 7 meeting of the Scott County Medical Society.

The program for the Scott County Society's Centennial Meeting, March 21, 1956, was printed in full in last month's JOURNAL. Interested physicians are invited to attend as guests of the Society, and they are asked to make reservations with Dr. James F. Bishop, 1818 Harrison Street, Davenport.

Wapello

Following the Wapello County Medical Society's 6:30 dinner at the Ottumwa Hospital on March 6, Dr. Edmund C. Burke, of the Department of Pediatrics at the Mayo Clinic, will speak on "Practical Aspects of Fluid Therapy in Children."

Webster

At a joint meeting of the Webster County Medical Society and its Auxiliary on February 1, Dr. Wendell L. Downing, of LeMars, president-elect of the Iowa State Medical Society, Dr. Fred Sternagel, of West Des Moines, chairman of the Board of the State Society, and Mr. Ray Stewart, the ISMS public relations director, were the speakers.

Winneshiek

Dr. Garfield Miller, of Calmar, was elected president of the Winneshiek County Medical Society on December 20. Dr. Lister E. Larson, of Decorah, was chosen vice-president; Dr. D. W. Wright, of Decorah, was made secretary-treasurer; and Dr. E. F. Hagen, of Decorah, and Dr. Wright were named delegate and alternate, respectively.

DEATHS

Dr. Henry Wolfe Bowers, 74, of Nevada, died there on January 12 after four years of ill health. He had practiced medicine and surgery in Story County for 42 years before his retirement in 1952.

Dr. Frank Wilbur Mills, 87, of Ottumwa, a Life Member of the Iowa State Medical Society, died at St. Joseph Hospital there on January 15, just a day after having been admitted.

Dr. James Willis Barrett, 64, of Independence, died suddenly at his home on January 23, following a heart attack. He had served his community for 35 years.

Dr. Theodore W. Lichter, 54, who had practiced at Edgewood for 25 years, died on January 30 in a Cedar Rapids hospital following major surgery.

Dr. Oran West King, 80, a urologist in Des Moines for 34 years, died at Iowa Lutheran Hospital there on February 7, two weeks after suffering a heart attack. He was a Life Member of the Iowa State Medical Society.

Dr. John Irwin Limburg, 75, of Jefferson, died on February 4, at St. Petersburg Beach, Florida.

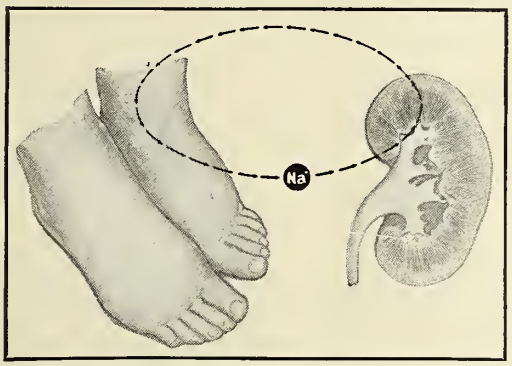
COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY	DEPUTY COUNCILOR
Adair	L. H. Ahrens, Fontanelle	C. D. Shope, Greenfield	A. S. Bowers, Orient
Adams	C. L. Bain, Corning	J. C. Nolan, Corning	J. C. Nolan, Corning
Allamakee	C. R. Rominger, Waukon	D. W. Dohnalek, Waukon	D. W. Dohnalek, Waukon
Appanoose	G. L. Richey, Centerville	C. H. Mitchell, Cincinnati	E. F. Ritter, Centerville
Audubon	H. K. Merselis, Audubon	R. L. Bartley, Audubon	L. E. Jensen, Audubon
Benton	L. W. Koontz, Vinton	N. C. Knosp, Belle Plaine	N. C. Knosp, Belle Plaine
Black Hawk	Eugene Smith, Waterloo	J. S. LePoidevin, Waterloo	C. D. Ellyson, Waterloo
Boone	R. A. Manderscheid, Boone	G. H. Sutton, Jr., Boone	R. L. Wicks, Boone
Bremer	R. P. Hardwig, Waverly	H. M. Hanson, Waverly	F. R. Sparks, Waverly
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Cass	D. E. Wilcox, Atlantic	E. M. Juel, Atlantic	R. M. Needles, Atlantic
Cedar	H. E. O'Neal, Tipton	O. E. Kruse, Tipton	H. E. O'Neal, Tipton
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Chickasaw	P. C. Richmond, New Hampton	D. L. Trefz, Nashua	M. J. McGrane, New Hampton
Clarke	C. R. Harken, Osceola	G. I. Armitage, Osceola	G. I. Armitage, Osceola
Clay	D. H. King, Spencer	E. O. Schlichtemeier, Spencer	C. C. Jones, Spencer
Clayton	J. J. Hea, Guttenberg	J. D. Lyon, McGregor	P. R. V. Hommel, Elkader
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Decatur	W. N. Doss, Leon	E. E. Gamet, Lamoni	E. E. Gamet, Lamoni
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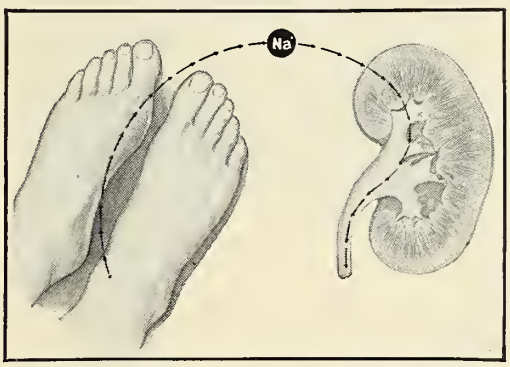
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An effective diuretic has been described as one which causes excretion of water, sodium and chloride in amounts sufficient to reduce the edema but not to result in salt depletion.

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Mictine is orally effective; it is not a mercurial; it has no known contraindications; it does not upset the acid-base balance; it exerts no significant influence on electrolyte balance; it may be given in the presence of renal or hepatic diseases; it is well tolerated.

As with most effective therapeutic agents, in high dosage Mictine may cause some side effects in some patients; however, on three tablets daily side effects (anorexia and nausea, rarely vomiting, diarrhea or headache) are minimal or absent.

Clinically, Mictine is useful in the maintenance of an edema-free state in all patients and for initial and continuing diuresis in mild or moderate congestive failure. It is not intended for initial diuresis in severe congestive failure unless either sensitivity or tolerance to other diuretics has developed in the patient.

The maintenance dosage of Mictine, as well as for initial diuresis in mild or moderate congestive heart failure, is one to four 200-mg. tablets daily in divided doses; the dosage for initial diuresis in severe congestive failure, under the conditions already described, is four to six tablets daily. For either use, it is recommended that Mictine be prescribed with meals on interrupted dosage schedules; that is, prescribing Mictine on alternate days or for three consecutive days and omitting it the next four days.

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The Month in Washington

Washington, D. C.—All too frequently overlooked in Congressional activity on health and related bills each year are the little-publicized but highly important appropriations measures, without which no program of the federal government could move forward. The appropriations hearings in the House (where all money bills must originate) rarely get headlines, for they are conducted behind closed doors. Weeks and some times months later, the hearings are published, but by then the bill supplying money for an agency has been reported to the House.

It's only when the measure gets to the Senate that private groups and individuals are heard—by then in open sessions. Closed House sessions are not new. That is the way it has been done ever since Congress set up a separate committee on appropriations back in 1865.

The importance of appropriations in running the federal government was clearly illustrated when the President submitted to Congress his 1,272-page budget message in which he sought $65.9 billion for all federal programs for the fiscal year beginning July 1.

Although the projected spending by all the agencies in the health field was not totaled, the budget requests for the Department of Health, Education, and Welfare showed a sharply upward trend. And if certain new legislation is voted on this session—like the projected 5-year program of construction grants for medical schools and private laboratory facilities—the total figure for the subsequent years is likely to be even higher.

On the medical school-laboratory construction bill, the President asked Congress for $40 million for the first year (estimated cost over five years is $250 million). Construction grants, which would have to be matched on a 50-50 basis, would be available for private medical schools as well as non-federal laboratories conducting research into a wide range of crippling diseases.

The budget message also calls for another $30 million in outright grants to the states to help them in financing poliomyelitis vaccination programs, the same amount appropriated by Congress last session. The administration in a separate request asked for extension of the polio law, from February 15, 1956 to June 30, 1957, and both House and Senate after only brief debate voted the 17-month extension. Since only half of last year's $30 million was spent up to the February 15 expiration date of the original act, there was no rush for Congress to act on the new account.

Other new spending asked by the administration—contingent, of course, on enabling legislation—includes $10 million for initial capitalization of mortgage loan guarantees for health facilities; $5 million for graduate and practical nurse and professional health personnel training, $3 million

for water pollution grants; $1.5 million for mental health expansion programs; and $1 million for sickness and disability surveys in the U. S.

If Congress approves the requests, virtually all segments of the HEW Department will have more money to spend than in this fiscal year. None would benefit more, however, than the medical research arm of government, the National Institutes of Health. The total sought for the seven institutes is 28 per cent more than estimated spending this year. Here are some examples: National Cancer Institute, $32,437,000, up 29 per cent; National Heart Institute, $22,106,000, up 17 per cent, and the National Institute of Allergy and Infectious Diseases (formerly the National Microbiological Institute), $9,799,000, a 26 per cent increase.

The President requested $130 million for the Hill-Burton hospital-clinic construction program which will be 10 years old this August. In this connection, Congress has been asked to extend the act for two years beyond next year, and action is expected this session.

NOTES

After a study of possibilities in the peaceful uses of atomic energy, a panel has recommended, among other things, that the U. S. encourage states and private organizations to take full advantage of the opportunities offered by radioactive material for medical research and treatment.

It now appears that an improved and more uniform program of medical care for service families will be adopted this session—possibly before this is published. One feature: A $25 deductible charge in civilian hospitals, but with the government paying the full insurance premium, and a mandatory subsistence charge in military hospitals.

Making slower progress is the plan—under consideration for more than a year—for a health insurance program for U. S. civilian workers. Here the government would pay about half the cost.

Several committees are urging stricter penalties and other changes to bring the illicit narcotic traffic under better control, but so far there has been no suggestion of imposing more controls over the medical profession in the handling of narcotics.

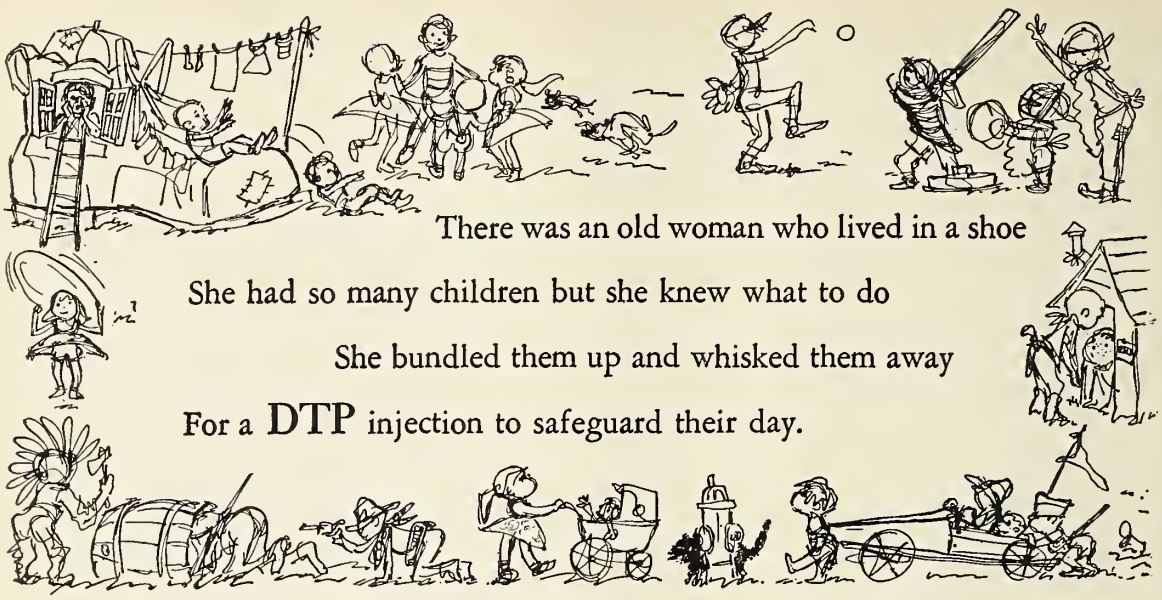
CANCER CONFERENCE IN WICHITA

The faculty for the Eighth Annual Midwest Cancer Conference March 22-23, at the Broadview Hotel, Wichita, will consists of J. H. Burchenal, M.D., of the Sloan-Kettering Instiute; B. P. Colcock, M.D., of the Lahey Clinic; W. J. Engel, M.D., of the Sloan-Kettering Institute; B. P. Colton Friedman, M.D., of New York University; J. F. W. King, M.D., of the American Cancer Institute; W. O. Russell, M.D., of Anderson Hospital, Houston; and G. D. Snell, Sc.D., of the Jackson Memorial Laboratory, Bar Harbor. There is to be no registration fee.

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BLUE SHIELD

The Blue Shield Full-Service Principle

This past year, since the House of Delegates of the Iowa State Medical Society asked the Blue Shield Board to explore the possibilities of offering two full-service contracts, one for low-income families (under $3,600) and the other for middle-income ones ($3,600-$6,000), there has been some discussion about the advisability of thus extending the full-service principle.

Some observations on that topic were recently made by William H. Horton, M.D., executive director of the Connecticut Blue Shield Plan. He pointed out three basic principles which need to be understood:

1. Full service is the only practical manner in which the traditions of the medical profession can be applied to the practical business of running an insurance company.
2. Full service is in the interest of the patient, and it is the interest of the patient that Medicine has always been proud to protect.
3. Full service is the only means by which Medicine can long be maintained as a voluntary profession.

"Blue Shield Service Benefits—Full Payment contracts," Dr. Horton went on to say, "possess (if I may paraphrase the slogan of a leading pharmaceutical firm) 'the priceless ingredient, the honor and integrity of the physician.' . . . This no indemnity plan can do."

In conclusion, he declared, "Unless it is possible for a majority of our people to insure themselves fully against medical care costs for significant medical treatment, the final decision of the public can be easily anticipated, and the medical profession will not like it."

NORMAL DIET HASTENS ULCER HEALING

Dieting with "bland" foods does not increase the rate of healing of peptic ulcers, according to a report by Drs. R. Doll, P. Friedlander and F. Pygott, of Central Middlesex Hospital, London, published in the January 7 issue of THE LANCET.

Their group of patients included 64 inpatients with gastric ulcers, 80 outpatients with gastric ulcers and 50 outpatients with duodenal ulcers. Half were given the standard hospital ulcer diet and the others were given a normal diet except for fried foods. Results showed a slight advantage for those on an "almost normal" diet as regards complete healing of ulcers (10/32 compared with 5/32) and the average amount healed for the whole group (70.3 as against 65.1 per cent). Those on the "almost normal" diet gained an average of 5½ pounds as against 2 pounds 14 ounces for those eating only bland foods.

At the end of the year's study, the proportion of patients who remained free from pain and in whom the ulcer was radiographically healed was practically the same for the two groups (pain free 22 and 21 per cent) and ulcer healed, (45 and 51 per cent).

—SCHERING SCIENCE BULLETIN

CONGENITAL NARCOTIC ADDICTION

Narcotic addiction with abstinence symptoms is a distinct clinical entity in the newborn, occurring more frequently than has been reported, according to an article by Drs. M. J. Goodfriend, I. A. Shey and M. D. Klein, in the January issue of the AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY. In their review of the literature, they had found 216 cases of infants born to addicted mothers. "The over-all reported mortality in infants showing withdrawal symptoms was 33.8 per cent, and in cases where the condition remained unrecognized and no treatment was given 93.2 per cent died," they state.

The authors predict that the problem of addiction in the newborn will increase "if the use of narcotics in women of the childbearing age continues to rise."

—SCHERING SCIENCE BULLETIN

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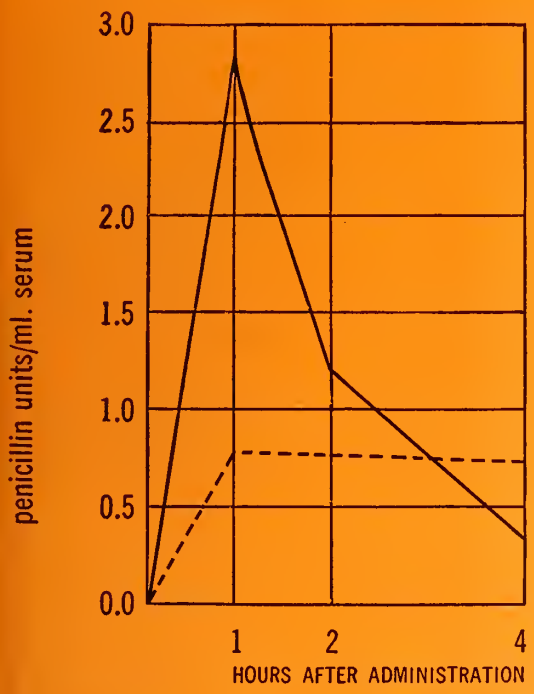
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1. Wright, W.W.: Personal communication.
2. Price, A.H.: Personal communication.

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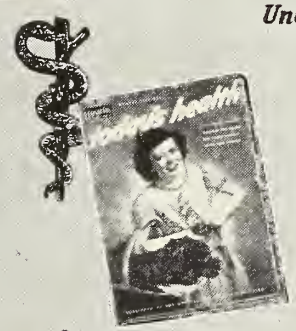
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PASSAGE OF JENKINS-KEOGH EXPECTED

An informal survey of Washington policy-makers reveals cautious optimism about passage of the Jenkins-Keogh Bill this year, according to an article in the February issue of MEDICAL ECONOMICS. If passed, it would allow doctors to put 10 per cent of their earned net incomes, up to an annual maximum of $5,000, into a privately managed trust fund, until the accumulation reached $100,000. Then, at age 65, they could make withdrawals either in a lump sum or in monthly installments. Under the first of those alternatives they would pay tax on capital gains; under the second, they would pay tax as if the withdrawals were current income, but having passed their sixty-fifth birthdays they would be in lower tax brackets than formerly.

Mr. Frank G. Dickinson, director of the AMA Bureau of Medical Economic Research, has declared, "Frankly, our chances this session are better than fifty-fifty."

STIPENDS FOR OPHTHALMOLOGY RESIDENTS

Eighteen fellowships for residents in ophthalmology will be established over the next three years by the Guild of Prescription Opticians of America. Each fellowship will provide a total stipend of $1,800, payable in monthly installments over the three-year period of residency.

They are to be started six each year in that number of regions throughout the United States. Thus, one fellowship will perpetually become available in each region every year.

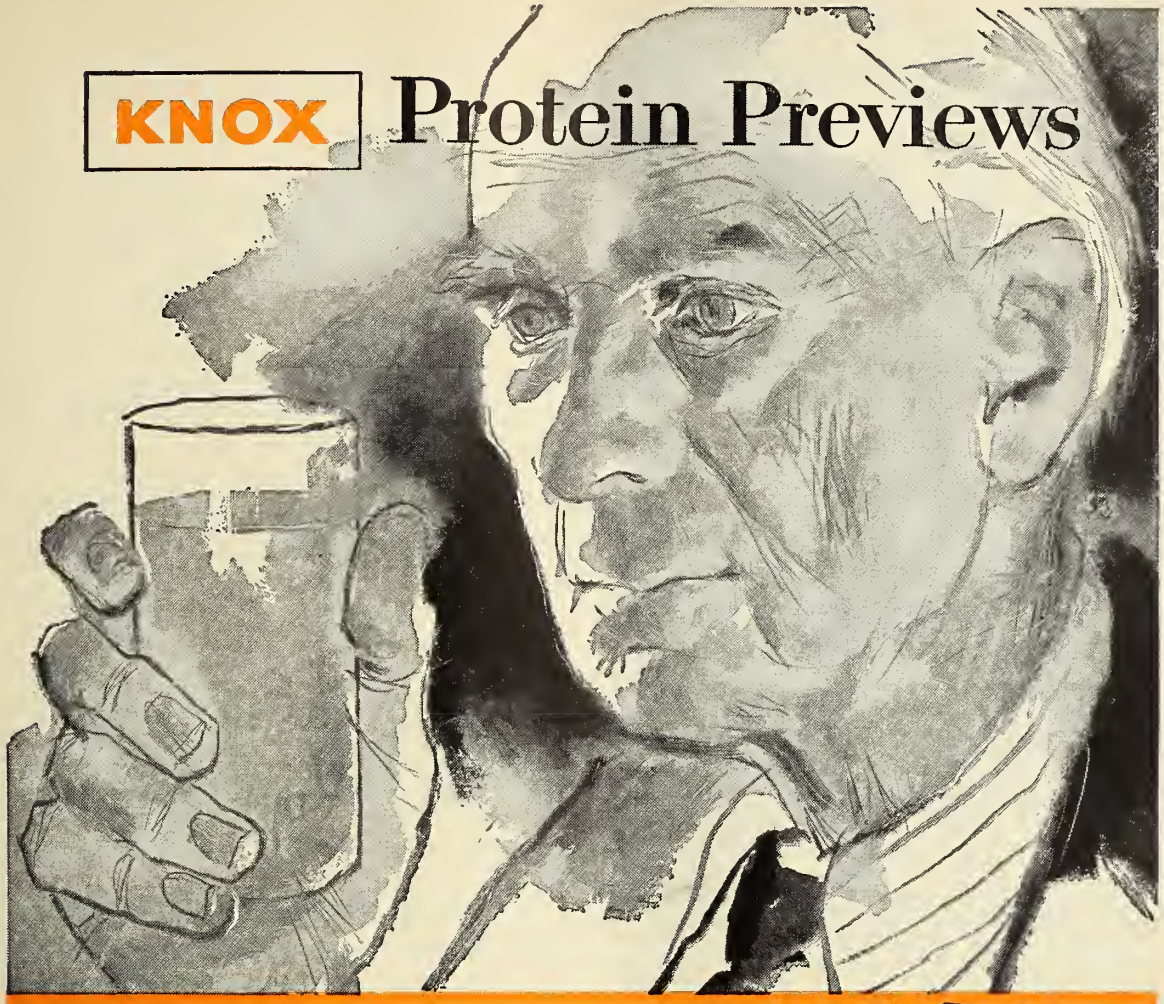
Requests for further information should be addressed to the Guild at 110 East 23rd Street, New York City 10.

NINETY-MINUTE MEDICAL T-V PROGRAM MARCH 18

A 90-minute drama penetrating the world of mental patients will be broadcast over the CBS network between 4:00 and 5:30 p.m. on Sunday, March 18. Entitled "Out of the Darkness," it is being produced by the network's public affairs division in cooperation with the American Psychiatric Association and the National Association for Mental Health.

As medical narrator, Dr. William C. Menninger will guide the television audience through the hitherto unknown world of mental illness, explaining modern treatment programs and the need for continued research. Cameras will follow a young woman patient's day-to-day progress over a four-month period.

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Specific suggestions on how to use Knox Gelatine in different types of geriatric diets are described in the booklets listed in the coupon below.

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PERSONALS

Friday January 13 was unlucky for **Dr. Gordon E. Rahn,** of Mt. Pleasant. A chair, two pictures, two brass smoking stands, a waste basket and an atlas were stolen from his reception room. His inner office was not burglarized.

Dr. C. A. Trueblood, of Indianola, has recently added four new treatment rooms to his office.

After completing a tour of duty on an LST in the Far East, **Dr. Max E. Olsen** (Lt., USNR), of Minden, is now stationed at the Navy procurement office in Kansas City, Missouri.

The author of "It Was Salubrious," an account of the first 25 years of the Scott County Medical Society that appeared in the Medical History section of last month's JOURNAL, is **Dr. George Morrissey,** of Davenport. With becoming modesty, he failed to put his name on the manuscript.

Dr. J. F. Loeck, of Independence, and **Dr. Philip Spencer,** of Essex, represented the Iowa Academy of General Practice at a regional institute on mental deficiency held at the University of Minnesota on February 2, 3 and 4.

At the meeting of the American Society for Surgery of the Hand in Chicago on January 27, **Dr. Julian Bruner,** of Des Moines, spoke on "Replacement of Multimetacarpal Loss With Single Iliac Bone Grafts." Dr. Bruner is historian of that Society.

The Board of Supervisors for Scott County has asked the Scott County Medical Society to determine whether there has been a sufficient decrease in the numbers of tuberculosis patients in the area under its authority to warrant conversion of the 81-bed Pine Knolls Sanitorium to a hospital-type county home. The monthly patient load there during 1955 is reported to have been no more than 26.

Dr. T. W. McMeans, spokesman for the Society in this matter, has declared that "need for a tuberculosis hospital in Scott County still exists."

Burglars attempted unsuccessfully to break into the office of **Dr. F. H. McClurg,** at Fairfield, on January 17.

Drs. R. C. Schropp and **H. E. Wichern**, of Des Moines, passed final examinations in St. Louis in December and are now diplomates of the American Board of Surgery.

Dr. William B. Bean, head of the Department of Internal Medicine at SUI, has received a $7,700 grant from the National Vitamin Research Foundation, Inc., for cancer research.

At Clinton, **Drs. M. E. Barrent** and **Verne Peterson** have purchased a site on which they plan to erect a new medical clinic building.

Dr. Kenneth P. Beebe, who has practiced at Mt. Pleasant for seven and a half years, will leave on April 14 for Seattle, where he intends to take a two-year course in anesthesiology. His brother, **Dr. John Beebe,** who formerly practiced with him, is already at the University of Washington studying orthopedics.

Dr. Elwood Buchman, a clinical assistant professor of internal medicine at SUI now on leave at the graduate hospitals of the University of Pennsylvania, has been named governor for Iowa of the American College of Gastroenterology.

Dr. Keith Campbell, a graduate of the College of Medicine at SUI who recently completed a residency in orthopedics and surgery at Ancker Hospital, St. Paul, joined the staff of Mercy Hospital Clinic, Oskaloosa, on January 16.

Dr. Edward H. Files has been appointed Cedar Rapids city health officer succeeding **Dr. E. F. Kopecky,** who resigned recently after serving three and a half years. Dr. Files will also be Linn County health officer and director of the Linn County Medical Relief Clinic.

Bristol Myers Company has given $4,000 to SUI to finance research in sedative drugs by **Dr. W. D. Paul,** of the Department of Internal Medicine.

After 28 years of charity service, **Dr. Emma M. Ackerman,** of Sioux City, has resigned from the staff of the Florence Crittenden Home, a hospital for unmarried mothers.

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Dr. W. B. McGahey is one of the newly elected directors of the Webster City Chamber of Commerce.

Returning from two years' service as a flight surgeon with the U. S. Air Force, **Dr. Robert G. Wilson** has resumed his association with **Dr. F. X. Tamisiea** at Missouri Valley.

The family of the late **Dr. Hans Hansen**, of Logan, has pledged $3,000 to equip an emergency operating room in his memory at the proposed Community Memorial Hospital at Missouri Valley. Harrison County has had no hospital, and community leaders are conducting a campaign to raise $300,000 with which to build one. They have expressed the opinion that a hospital that is not tax supported can be operated more economically than can a governmental one.

Officers of the newly formed Des Moines Pediatric Society are **Dr. Ralph Dyson**, president; **Dr. Charlotte Fisk**, vice-president; and **Dr. Leonard Gangness**, secretary-treasurer. The group plans to hold monthly meetings.

Dr. Paul Seebohm, Dr. G. N. Bedell and some of their associates at SUI are undertaking to desensitize patients against allergies. When they have discovered by means of a series of tests that an individual is susceptible to one or more types of pollen or other air-borne material, they administer injections of allergens in advance of the season when he would otherwise have difficulty.

Dr. C. W. Byrnes, of Dunlap, underwent lung surgery recently at the Veterans Administration Hospital in Omaha.

Dr. Dale E. Dunn, of Estherville, is the new coroner of Emmet County. A justice of the peace had temporarily filled the vacancy created by the death of **Dr. C. Smith Kirkegaard.**

Dr. and Mrs. H. Kirby Schiffler, of Des Moines, are the recipients of a most unusual gift. Some friends of theirs in Paris are sending them a French tutor for their children.

For his studies in epiphyseal slipping and Legg-Perthes disease, **Dr. I. V. Ponseti**, associate professor of orthopedic surgery at SUI has been given a

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$1,000 award by Kappa Delta. The national sorority makes such a presentation annually to a scientist engaged in research related to the problems of handicapped children.

At the section meeting on otology, laryngology and rhinology at the AMA meeting in Chicago June 12-14, 1956, **Dr. Lawrence J. Halpin**, of Cedar Rapids, will speak on "Clinical Evaluation of Food Sensitization in Perennial Nasal Allergy." Dr. Halpin is a past president of the American College of Allergists.

Dr. James O. Merritt opened an office at 1600 Army Post Road, Des Moines, on February 6.

On January 26, **Dr. B. C. Luehrsmann** occupied his new 17-room clinic building in Dyersville.

INVESTIGATION BUREAU EXPOSES QUACKS

In explaining the work of the AMA Bureau of Investigation, which he heads, Mr. Oliver Field presented the Institute of Medical Society Executives a check list for detecting charlatans and asked for help in exposing them. The Bureau of Investigation functions as a clearing house for information on persons and organizations allied with the unscientific side of medicine.

The Bureau obtains its information primarily from state and county medical society secretaries, better business bureaus, chambers of commerce, state medical boards and health departments, but it also welcomes tips from individual physicians. "Pass such information on to us as a matter of routine," he requested. "In all probability it will tie up with something we obtained previously from another source, thus completing a picture which is frequently and eagerly sought by some state or local secretary."

Mr. Field explained that quacks usually display one or more of the following characteristics which were outlined recently by a commission set up by the California Medical Association: (1) His treatment is available only from him; (2) His treatment bears his own name or that of a high-sounding research organization; (3) His treatment is advertised; (4) He claims he is being persecuted by the "medical trusts"; (5) His cured patients and greatest supporters have only his word for it that they had a disease in the first place; and (6) He discourages or refuses consultations with reputable physicians. "Frequently," he said, "if charlatans are discouraged early in their new habitat, rather than after they are firmly established, the job of exposing them is much easier and more successful."

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 11:15 a.m.

"SIXTEEN—GROWING UP"

March 1 ..... Your Place in the Family
March 8 ..... What's My Vocation
March 15 ..... Food, Nutrition and Appearance
March 22 ..... Money
March 29 ..... Boy Meets Girl

WSUI—Iowa City, Iowa
Tuesday at 11:45 a.m.

"MEDICINE FIGHTS THE KILLERS"

March 6 ..... Coronary Thrombosis
March 13 ..... Rheumatic Fever
March 20 ..... Cancer in Older Persons
March 27 ..... Leukemia

TELEVISION

WOI-TV—Ames, Iowa

"TEENAGE PROBLEMS"

March 1, 8:30 p.m. ..... Communicable Diseases
March 22, 8:30 p.m. ..... Getting Along
March 29, 10:00 p.m. ..... Habits

There will be no ISMS broadcast over WOI-TV on the other Thursdays in March.

KGLO-TV—Mason City, Iowa
Monday at 2:00 p.m.

"TEENAGE PROBLEMS"

March 5 ..... Weight Problems
March 12 ..... Athletics and Physical Education
March 19 ..... Rheumatic Fever
March 26 ..... Eye, Ear, Nose and Throat

KCRG-TV—Cedar Rapids, Iowa
Sunday at 12:00 noon

"TEENAGE PROBLEMS"

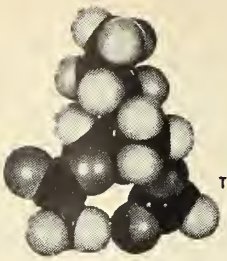
March 4 ..... Acne
March 11 ..... Weight Problems
March 18 ..... Athletics and Physical Education
March 25 ..... Rheumatic Fever

KTIV-TV—Sioux City, Iowa
Saturday at 3:30 p.m.

"TEENAGE PROBLEMS"

March 3 ..... Preparation for Marriage
March 10 ..... Personal Health
March 17 ..... Acne
March 24 ..... Weight Problems
March 31 ..... Athletics and Physical Education

The foregoing schedules are subject to change at the discretion of the station managers.



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*Krantz, J. C., Jr., and Carr, C. J.: The Pharmacalogic Principles of Medical Practice, ed. 3, Baltimare, The Williams and Wilkins Campany, 1954, p. 998.

68556

UNBANDAGED SURGICAL WOUNDS

Drs. Louis T. Palumbo, Philip J. Monnig and Dudley E. Wilkinson, of the Veterans Administration Hospital at Des Moines, advanced further evidence of the practicality of leaving chest and abdominal wounds uncovered in an article which appeared in the February 18 issue of J.A.M.A.

The method was first recommended before 1920, but has never been used extensively. The Des Moines physicians said that clean wounds without dressings appear to heal more rapidly and with less reaction than covered ones, and in addition, that the non-dressing of such wounds is convenient, saves some time and expense and avoids the irritation of adhesive tape.

The report covers 211 consecutive cases with 222 clean surgical wounds of the abdomen and/or chest. Half were managed conventionally and half were left undressed. In only one instance in the test group was there a complaint from a patient about the wound's being irritated by the sheets or pajamas.

REQUESTS OPINIONS ABOUT JOINT COMMISSION

Last October, Dr. W. C. Stover, Boonville, Indiana, chairman of a committee set up by the House of Delegates of the AMA to review the functions of the recently established Joint Commission on Accreditation of Hospitals, invited comments from physicians relative to the Commission's activities. So far, he reports, he has had no more than 164 replies from 26 states, which he thinks is "not a big response."

He therefore has extended the deadline for replies to March 15, and asks that physicians give him the benefit of their ideas on the topic. The committee plans to meet in April, to prepare its report.

URINE-SUGAR TEST SIMPLIFIED, QUICKENED

A small strip of fine-grain filter paper impregnated with enzymes will enable a diabetic patient to make a colorimetric percentage determination of his own urine sugar in 60 seconds.

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ARMY MEDICAL OFFICERS UPGRADED

All Army physicians and dentists holding the grade of first lieutenant who have at least one year of professional experience are to be advanced to the grade of captain immediately. Starting in April, doctors and dentists entering the Army will receive initial grades of captain if they have a year or more of professional experience. Thus, with the exception of military interns—who serve as first lieutenants—the lowest grade in the Army Medical Corps will be that of captain.

The new policy recognizes that doctors must have at least nine years of training beyond high school, in contrast to the four years of formal education beyond high school required of most other officers.

ROSTER OF IOWA PHYSICIANS IN MILITARY SERVICE

As of February 10, 1956

Bateman, R. D., Iowa City
(Keesler Field, Mississippi) .....Capt., U.S.A.F.
Berard, Wm. P., Iowa City
(Seattle, Washington) .....Lt. Cdr., U.S.N.R.
Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, USNR
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego, Calif.) .....Lt.(j.g.), U.S.N.R.
Cooper, T. J., Iowa City
(Orlando, Florida) .....Capt., U.S.A.F.
Davidson, M. C., Emmetsburg
(El Paso, Tex.) .....Col., A.U.S.
Day, R. T., Hampton
(18th THC Hospital, APO 123, New York)
.....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Dieckman, M. R., Grundy Center
(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., USAF
Frys, Russell N., Iowa City
(Ft. Clayton, Canal Zone) .....Capt., A.U.S.
Geist, James H., Iowa City .....
Gleeson, J. J., Vail
(Gt. Lakes Nav. Tr. Sta., Illinois) .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
.....Capt., A.U.S.
Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Hastings, R. A., Ottumwa
(U.S. Naval Hosp., Pensacola, Florida) .. Lt., U.S.N.
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Hodges, R. E., Iowa City
(Silver Spring, Maryland) .....Capt., A.U.S.

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MARTIN J. KRAKAUER, Psychologist

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(Corona, California) .....Lt., U.S.N.R.
Johnston, T. L., Iowa City
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Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Koptik, George, Jr., Garwin
(Camp Lucas, Sault Ste. Marie, Mich.) .....
Kruse, R. H., Conrad
(Pearl Harbor, T. H.) .....Lt., U.S.N.R.
Larson, Gerald E., Elk Horn
(A.P.O. 856, New York, N. Y.) .....Capt., U.S.A.F.
Lawler, Matthew P., Des Moines
(Corona, California) .....U.S.N.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.
McCoy, John T., Cedar Falls
(U.S. Naval Hosp., Philadelphia, Penn.) Lt., U.S.N.R.
McFadden, F. Ross, Davenport
(Corpus Christi, Texas) ....Lt. Commander, U.S.N.
Marme, George W., DeWitt .....U.S.A.F.
Meyer, Paul G., Manchester
(APO, New York) .....Capt., A.U.S.
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(Phoenixville, Pa.) .....Lt. Col., A.U.S.
Olsen, Max, Minden
(66 N. Oak St., Trfwy, Kansas City, Mo.) Lt., U.S.N.
Olson, Stewart O., Des Moines
(Seattle, Washington) .....Lt., USN
Pfeiffer, D. W., McGregor
(Ft. Sam Houston, Texas) .....A.U.S.
Powell, Robt. M., Iowa City
(U.S.A. Hosp., Ft. Hood, Texas) .....Capt., A.U.S.
Rainy, Robert L., Iowa City .....
Rodgers, G. H., Mt. Ayr
(Brooke Army Hosp., Ft. Sam Houston, Texas)
.....Lt. A.U.S.
Rogers, Edward A., Anamosa (U.S.P.H.S. Hospital, Seattle) .....
Sacco, Severino O., Iowa City
(Phoenixville, Penna.) .....
Saunders, R. J., Coltax
(Detroit, Michigan) .....1st. Lt., U.S.A.F.
Sear, John, Alden
(Box 6254, Fitzsimons Army Hosp., Denver 8)
.....1st Lt., A.U.S.
Sears, Richard H., Iowa City
(Washington, D. C.) .....Lt., USNR
Severson, Wayne L., Slater
(54th Disp., Greater Pittsburgh Airport, Coraopolis, Penna.) .....Capt., U.S.A.F.
Sinton, D. W., Iowa City
(Denver, Colorado) .....A.U.S.
Slate, W. G., Iowa City .....
Swanson, Eric M., Iowa City
(Omaha, Nebraska) .....
Thompson, J. W., Ames
(Camp Breckinridge, Kentucky) .....Capt., A.U.S.
Trosman, Harry, Iowa City
(Camp Pendleton, California) .....U.S.N.R.
Turner, R. M., Armstrong
(11th Field Hosp., APO 178, New York City)
.....Capt., A.U.S.
Winter, F. D., Burlington
(Elmendorf A.F.B., Anchorage, Alaska) ...U.S.A.F.
Workman, R. D., Ruthven (Deep Sea Divers, Naval Gun Factory, Washington, D.C.) .....Lt., U.S.N.

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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI APRIL, 1956 No. 4

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To the Doctors of Iowa

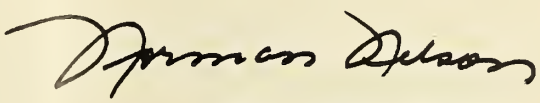


Greetings from *your* College of Medicine. Your faculty is ever more conscious of its responsibility to you who are treating the people of Iowa. You are demanding, and rightly so, that we train young men and women worthy of being your colleagues; that we conduct research aimed at improving the practice of medicine; and that we continue to provide you with consultation services as you desire.

In order to accomplish these purposes we must attract and keep an excellent staff. I honestly believe that your faculty here at the University compares favorably with any in the country. In some areas it is unsurpassed.

One of the large factors in maintaining such a faculty is the support and understanding of the doctors of Iowa. It is the policy of the College of Medicine to explore every means of working closely with practicing physicians. During the past year I can report profitable consultation with such groups as the Officers, Board of Trustees, and the Council of the State Medical Society, its committees on Legislation, Medical Education, Mental Hygiene, Rural Health, and others. From time to time we have been in consultation with such recognized groups as the State Board of Medical Examiners, and The Academy of General Practice. To list all of the important groups involved would be impractical.

We believe in the honesty, integrity and interest of the medical profession in teaching and research. When men of good will get together problems are solved. I am proud of the medical profession in Iowa, and of the relation of the College of Medicine to it. Your thoughts, ideas, and constructive criticisms are solicited. They will receive honest consideration, and action where indicated.



Dean, College of Medicine
State University of Iowa

In Memoriam

Dr. John T. McClintock, M. D.



The College of Medicine of the State University of Iowa wishes to pay tribute to Professor John T. McClintock who passed from among us on September 25, 1955. Dr. McClintock served the College longer than any other professor—his tenure of full-time and part-time duty extending from 1898 to 1955. His life-time record of service and achievement has already been recorded in the pages of the JOURNAL.

Dr. McClintock not only participated in the building of a distinguished department in his own field, physiology, but he also sacrificed many years which he might have devoted to scientific study, to administrative activities. As a steady and faithful force, he assisted in guiding the school through the periods of trial which come to all growing organizations. He was wise in counsel and just in his dealings with students and colleagues. We will remember him for guiding his College in the direction of sound scholarship and patient study.

WALTER R. INGRAM, Ph.D.

Kate Daum, Ph. D.

Kate Daum was so modest and unassuming as she went about her cluster of jobs with their many details that none of us was prepared for the vacuum her death created. As a measure of her varied capacities, we record her large classes of graduate students; her extensive teaching load; her many research enterprises in metabolism and nutrition; and her concern with the practical matter of how much of what foods one should eat for breakfast. To this was added the ever more complex problems of feeding the sick; of special diets for special forms of illness, and incentives for those whose illness had deprived them of appetite; of detailed and time-consuming research on experimental diets and balance studies; and not least, feeding the sometimes critical and fastidious company of physicians, nurses and staff, that large concourse of people required to perform the many duties of the busy hive a great modern hospital has become.

Kate Daum's warmth of personality, her motherly qualities, her unassuming and excellent competence made it difficult for us to realize how wide was her influence, how far reaching her fame. In our age of shattered idols, we rarely admit greatness in our contemporaries, even if we recognize it. But she was recognized as the leader of a "school" in nutrition, and her students have added luster to her name. A token of her achievements came with a Borden award in 1949. These are no mean accomplishments for a woman in a man's world. A fitting symbol of what her career meant is the fact that her newly appointed successor, Doctor Margaret Ohlson, is one of her most distinguished students.



So on behalf of her friends, colleagues and students (many were all three), and of all the patients whose lot she made easier and pleasanter, we give this accolade to the memory of Kate Daum for high attainments, for scholarship and for service done with the quiet grace which is the humility of true greatness.

WM. B. BEAN, M.D.

Scientific Articles

Hemorrhagic Diseases Due to Deficiencies Of Plasma Coagulation Factors

WILLIAM P. JOLLY, M.D.

IOWA CITY

THE INTERPLAY OF various plasma factors in the process of blood coagulation has been found in recent years to be a complex system of chemical and enzymatic reactions. As individual components concerned in this process have been discovered, purified and investigated, hemorrhagic states that previously were poorly understood have been clarified. The treatment for several clinical entities has consequently become specific, and the value of determining as exactly as possible the defective or insufficient elements has assumed added importance.

Because of rapid advances in this field during the past few years, the Coagulation Laboratory at University Hospitals* has been established and sponsored by members of the Departments of Pathology and Internal Medicine. It functions as a clinical research facility and as a diagnostic laboratory for the investigation of obscure or catastrophic bleeding disorders. The clinicians and the pathologists interested in basic research in the subject are brought together so that the full advantage of modern therapy in this fast-moving field may be brought to bear upon each patient.

MECHANISM OF COAGULATION

To understand the various deficiency states, one must have a knowledge of present concepts of blood coagulation. Most theories on the subject are based upon the classical one developed by Morawitz in 1905:

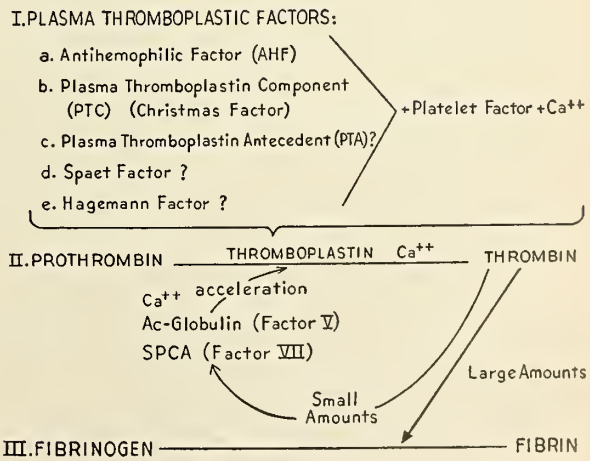
$$\text{Prothrombin} \xrightarrow{\text{Thromboplastin} + Ca^{++}} \text{Thrombin}$$

$$\text{Fibrinogen} \xrightarrow{\text{Thrombin } Ca^{++}} \text{Fibrin}$$

That theory is now known to be an oversimplification, for recent work has revealed that (1) activation of thromboplastin is a separate, preliminary phase in the formation of thrombin; (2) other factors besides thromboplastin and calcium take part in the conversion of prothrombin to thrombin; (3) serum contains agents capable of accelerating the conversion of prothrombin to thrombin; and (4) the formation of thrombin during coagulation proceeds as an autocatalytic reaction.

Today, blood coagulation is visualized as a three-step process: (1) activation of thromboplas-

TABLE 1



Dr. Jolly is a research fellow in hematology and an instructor in internal medicine at the SUI College of Medicine.

* Originally maintained by funds from the College of Medicine Trust Fund, and now supported by a grant from Parke, Davis & Company.

tin; (2) conversion of prothrombin to thrombin; and (3) formation of fibrin. The interaction of the factors involved is shown in Table 1.

With the exception of calcium, each of the factors involved in this process have been clinically observed to produce hemorrhagic states. It is the purpose of this paper to provide a brief review of the existing knowledge regarding identification and treatment of these disorders, except for thrombocytopenia.

DIAGNOSTIC METHODS

In approaching a patient with abnormal bleeding, one first should attempt to classify the hemorrhage as capillary, thrombocytopenic or symptomatic of a defect in plasma coagulation factors. Capillary purpuras often take the form of petechial or localized bleeding. Thrombocytopenic bleeding is characteristically superficial, occurring as spontaneous petechiae and ecchymoses in the skin, or as an oozing from the mucous membranes. Hemorrhage due to plasma factor defects may occur anywhere in the body, usually following trauma. Massive hemorrhages into the joints or deep tissues are common.

It is obvious that a careful history is of the utmost importance in this problem. The sites, character, amount and frequency of hemorrhage; the age at onset; the relation to trauma or tooth extraction; the menstrual history; the response to previous types of therapy; and the occurrence of similar bleeding in relatives are essential points to be ascertained.

A careful physical examination should be done. Telangiectases, bleeding areas, evidence of old or recent bleeding, limitation of motion of joints, enlargement of liver, spleen or lymph nodes, jaundice and examination of the stools for blood are of particular pertinence in the evaluation of each patient.

Routine laboratory work should include a complete blood count, with careful inspection of a stained smear for the appearance and number of leukocytes and platelets; urinalysis; bleeding time; Lee-White coagulation time; clot retraction; tourniquet test; platelet count; and one-stage prothrombin test (Quick). In many instances these tests will be sufficient to indicate the diagnosis. Often, however, additional studies will be needed. These additional tests, as now performed at the SUI Coagulation Laboratory, are (1) hematocrit, (2) two-stage prothrombin test, (3) test for circulating anticoagulants, (4) fibrinogen determination, (5) prothrombin consumption test, and (6) test for abnormal fibrinolysis.

If abnormalities of the coagulation time and/or the prothrombin consumption test are noted, samples of plasma or serum known to be deficient in a specific factor are added to the patient's blood *in vitro*, and the tests are repeated. The usual testing substances used at present are aged normal serum, barium-sulfate-adsorbed normal plasma or serum, hemophilic plasma and plasma deficient in plasma thromboplastin component (PTC).

At appropriate times, other special tests are available such as the antithrombin test, the protamine titration test, the thrombin clotting test and others.

The properties of the plasma factors which facilitate their differentiation are listed in Table 2. Certain factors are consumed during clotting (prothrombin, accelerator globulin, fibrinogen and antihemophilic factor). Others are activated during the clotting process (accelerator globulin, and serum prothrombin conversion accelerator or SPCA). Adsorption with alkaline earths, such as

TABLE 2
PROPERTIES OF PLASMA COAGULATION FACTORS OF VALUE IN LABORATORY DIAGNOSIS

	Plasma Factors Involved in Stages II and III of Clotting				*Plasma Factors Involved in Stage I of Clotting*				
	PROTHROMBIN	AC-G	SPCA	FIBRINOGEN	AHF	PTC	PTA	SPAET	HAGEMANN
1. Fresh Normal Plasma	+	+ inactive	+ inactive	+	+	+	+	+	+
2. Stored Normal Plasma	±	±	+	+	±	+	+	+	+
3. Normal Serum	Decreased or 0	0	+ active	0	0	+	+	+	+
4. Ba So_4 Adsorbed Normal Plasma	0	+	0	+	+	0	+	+	+
5. Ba So_4 Adsorbed Normal Serum	0	0	0	0	0	0	+	+	+
6. Hemophilic Plasma	+	+	+	+	0	+	+	+	+
7. PTC Deficient Plasma	+	+	+	+	+	0	+	+	+
8. Parahemophilic (Ac-G Deficient) Plasma	+	0	+	+	+	+	+	+	+

barium sulfate, removes prothrombin, SPCA and PTC.

Grouping diseases due to plasma coagulation defects into two main classes sometimes can be accomplished by examination of two simple tests, namely the Lee-White coagulation time and Quick's one-stage prothrombin. At other times, a prothrombin consumption test is necessary to provide a diagnosis (see Table 3).

TABLE 3

I. *Prolonged Coagulation Time—Prolonged One-Stage Prothrombin Test*

1. Hypoprothrombinemia
2. Hypofibrinogenemia
3. Ac-G deficiency
4. SPCA deficiency
5. Circulating anticoagulant ±

II. *Prolonged Coagulation Time ±—Normal One-Stage "Prothrombin" Test—Abnormal Prothrombin Consumption*

1. Hemophilia (AHF deficiency)
2. Plasma Thromboplastin Component (PTC) deficiency (Christmas Disease)
3. Plasma Thromboplastin Antecedent (PTA) deficiency
4. Spaet Factor deficiency
5. Hagemann Factor deficiency
6. Circulating anticoagulant ±

Certain reservations about such classifications should be made. Patients with mild defects of plasma thromboplastin formation (mild hemophilia, etc.) may have normal clotting times. The level to which most of the plasma factors must fall to allow hemorrhage is so low that marked deficiencies may exist before bleeding occurs. The Lee-White clotting time is itself a crude measure of clotting effectiveness, since it may be profoundly influenced by such factors as the caliber and cleanliness of the tubes, the vigor of tilting, and the amount of foaming of the blood. For these reasons, meticulous care must be exercised when one performs and interprets this test.

HYPOPROTHROMBINEMIA

Of the diseases listed in Group I, hypoprothrombinemia is the commonest. It may be either congenital or acquired.

Congenital deficiency in many instances is familial.[1] The commonest clinical feature is epistaxis.[2] Other manifestations are bleeding from the gums, spontaneous bruising, menorrhagia and severe bleeding from injuries. Hematuria and hemarthroses may occur. The cause of the defect in prothrombin production is unknown.

Acquired prothrombin deficiency may be idiopathic, or it may be due to vitamin K deficiency, liver disease or Dicumarol poisoning. Vitamin K deficiency may be caused by a faulty absorption from the gastrointestinal tract due to obstructive jaundice, steatorrhea and hemorrhagic disease of the newborn. The patient with a severely diseased liver or one who is receiving Dicumarol is unable to maintain adequate prothrombin levels, but the mechanism of the deficiency is unknown. Recently, propylthiouracil has been reported as a rare cause of hypoprothrombinemia.[3, 4]

In acquired hypoprothrombinemia, the type of bleeding depends upon the origin of the defect. In hemorrhagic disease of the newborn, bleeding is usually from the umbilical cord and from the gastrointestinal tract. Postoperative bleeding in obstructive jaundice is common, although spontaneous hemorrhage is rare. Hematuria is often the first sign in cases of Dicumarol poisoning.

Patients with hypoprothrombinemia due to lack of vitamin K will respond when that agent is given parenterally. Vitamin K_1, in 1 to 10 mg. oral or intravenous doses, will usually reverse the effects of Dicumarol overdosage within 24 hours. Occasionally 50 mg. intravenously become necessary when hemorrhage has occurred.[5] The effects of vitamin K preparations are variable in treating the hypoprothrombinemia of hepatic disease. Patients with the congenital type may or may not respond to the vitamin.[1] Transfusions are not particularly effective, but if fresh blood is used, they may be of temporary value.

DEFICIT OF ACCELERATOR GLOBULIN

Congenital deficiency of accelerator globulin (labile factor, Factor V, proaccelerin) or parahemophilia has been reported in at least 15 cases. It is familial, though the exact mode of inheritance has not been discovered. It may affect either sex.

Acquired deficiency of accelerator globulin has been reported in liver disease, advanced carcinoma, pregnancy and postoperative states. In the latter instance, the deficit is maximal at the third postoperative day and normality is restored by the ninth day. Accelerator globulin is said to be reduced following Dicumarol administration, but the drop is usually not marked. Sporadic cases of unknown etiology occasionally occur.

The pattern of bleeding due to lack of accelerator globulin is similar to that in prothrombin deficiency. Hemarthroses have rarely been reported. In some cases a prolonged bleeding time is noted.

Since accelerator globulin is quite labile in stored blood, fresh whole-blood transfusions are the best therapy. The effect of vitamin K or K_1 in the acquired deficiency is not definitely known. There is no evidence that these agents have any effect upon the congenital deficiencies.[6]

DEFICIT IN SPCA

Congenital deficiency of the second accelerator factor, variously called serum prothrombin conversion accelerator (SPCA), stable factor, Factor VII or proconvertin, has been described in at least ten cases. Both sexes are affected.

Acquired deficiency occurs in obstructive jaun-

dice, steatorrhea, vitamin K deficiency and liver disease, and after the administration of various anticoagulants (Dicumarol, Tromexan, phenylindanedione, etc.). Abnormally high levels occur in the last trimester of pregnancy, but they diminish shortly after term.[7]

The clinical features are similar to those of hypoprothrombinemia. When the deficit has been due to lack of absorption of vitamin K or to the anticoagulants, vitamin K and K_1 are efficient correctives. Though inadvisable in the treatment of accelerator-globulin deficiency, bank blood is perfectly adequate for transfusion to these patients because of the stability of SPCA in stored blood.

A word of caution is necessary at this point. In hepatic disease, multiple deficiencies of prothrombin, accelerator factors and fibrinogen may occur. Treatment should be adjusted accordingly.

Some doubt as to the existence of SPCA as a specific protein entity has recently been raised by Seegers. Rather, he has shown that it is very likely a derivative of prothrombin.[8]

HYPOFIBRINOGENEMIA

Another defect prolonging both the coagulation time and the one-stage prothrombin test is hypofibrinogenemia. This state has been described in congenital (18 cases) and in acquired forms.

Congenital hypofibrinogenemia affects both sexes. In infants with complete congenital absence of fibrinogen, the resulting hemorrhagic state is similar to that produced by hemophilia. Despite complete incoagulability of the blood, however, the clinical features may be less severe. A prolonged bleeding time is occasionally encountered. It is of interest that the stages of coagulation preceding the final conversion of fibrinogen to fibrin proceed normally in these patients.[9]

There is a condition termed "constitutional hypofibrinogenemia" in which fibrinogen levels are diminished, but exceed 100 mg. per 100 ml. All cases have been in women who noted an abnormal tendency to bruise and to bleed from small abrasions.

Acquired decrease or absence of fibrinogen has received considerable attention in recent years. It is commoner than the congenital form. It usually occurs as a complication of liver disease, shock, pregnancy, pulmonary lobectomy, and neoplastic disease, particularly of the prostate, pancreas or stomach. The critical level below which hemorrhage is common is said to be 60 mg. per 100 ml. The exact mechanism by which fibrinogen is lowered is not clear in many instances. Deficient production may occur in hepatic disease. Acute defibrination *in vivo* resulting from intravascular release of thromboplastic substances has been postulated as the cause of lowered fibrinogen in abruptio placentae, fetal death in utero, toxemia of pregnancy, placenta previa and pulmonary surgery. Increased fibrinolytic activity has also been reported in these conditions, as well as with certain neoplasms, particularly carcinoma of the prostate.

Treatment of hypofibrinogenemia consists of transfusions or intravenous infusions of purified human fibrinogen. To supply roughly 1.5 to 2.0 Gm. of fibrinogen, one needs 500 cc. of normal whole blood or 250 cc. of plasma. Ordinarily, bank blood is quite suitable for this purpose. The usual amounts of fibrinogen needed are 4 to 6 Gm., and the transfusion process can be repeated as often as necessary.

Emptying the uterus in pregnancy or treatment of the underlying disease in other situations often reverses the fibrinogenopenic tendency.

CIRCULATING ANTICOAGULANTS

Inhibitory substances that interfere with any stage of coagulation may prolong the coagulation and prothrombin times. These anticoagulants may arise in many unrelated diseases, following blood transfusions, or *de novo*.

The commonest type of circulating anticoagulant is antithromboplastin, which interferes with the early phases of coagulation. It is encountered occasionally in hemophiliacs who have received multiple transfusions, and it is presumed to be the result of immunizing the patient to the antihemophilic factor. A similar antithromboplastin has been reported following pregnancy, perhaps due to immunization by placental fragments.[10] Other diseases occasionally associated with antithromboplastins are tuberculosis, syphilis, chronic nephritis, subacute bacterial endocarditis, multiple myeloma, liver disease, lupus erythematosus and neoplasia.

Anticoagulants of the antithrombin type are rare, but have occasionally been seen in anaphylaxis and in leukemia.

A recent paper describes the occurrence of abnormal globulins which interfere with the conversion of fibrinogen to fibrin in multiple myeloma.[11]

There is no effective treatment for these abnormal anticoagulants, although Van Creveld has reported temporary improvement through the use of cortisone and ACTH in a hemophiliac having an antithromboplastin.[12]

DEFICITS IN THROMBOPLASTIN FORMATION

In the presence of a normal one-stage prothrombin time, a prolonged coagulation time indicates a defect in the formation of plasma thromboplastin. Prior to 1952, it was believed that only one plasma thromboplastic factor existed—namely, the antihemophilic factor. Since then, however, it has been shown that at least one other factor (PTC) and perhaps three of them (PTC, Spaet factor and Hagemann factor) are involved in this reaction. The latter three have been reported in a

limited number of cases, but their exact nature and properties have not been worked out. Clinical features of these diseases are shown in Table 4.

Hemophilia, or deficiency of antihemophilic factor (AHF), exists in varying degrees of severity depending upon the amount of antihemophilic factor available. It should be noted that reduction to less than 0.1 per cent of normal AHF concentration is necessary to prolong the clotting time. In mild cases, the only abnormality may be an impaired prothrombin utilization as shown by the prothrombin consumption test. A coagulation time drawn during bleeding, however, may be prolonged in these cases.

The treatment of the resulting hemorrhage consists of transfusions of fresh whole blood or plasma. Although it has been shown that appreciable quantities of AHF may remain in stored blood collected in citrate, fresh blood seems superior in severely bleeding patients. Fractionated plasma is inferior because there is a marked loss of AHF during processing.

Topical thrombin plus mild pressure may occasionally be of value in the arrest of superficial bleeding.

Surgical procedures, including dental extractions, should be avoided if possible. If surgical intervention is absolutely necessary, preoperative transfusions of fresh blood or plasma should be given. The equivalent of 1,000 to 1,500 cc. of whole blood should probably be given before operation, and continuous or repeated transfusion therapy should be maintained during operation and until the bleeding ceases.[13]

Plasma thromboplastin component (PTC) deficiency (Christmas disease) is similar to hemophilia, but usually is milder. Unlike the antihemophilic factor, PTC is not used up in the clotting process but appears to have higher potency in serum than in plasma. Because of this latter characteristic, some doubt has arisen as to its existence as a specific protein entity. Evidence has been accumulated to show that PTC is another derivative of the prothrombin molecule.[14] Clinical features are described in Table 4.

Since PTC is not used up in clotting and since its potency actually appears to increase in stored blood, regular bank blood is adequate in therapeutic transfusion. Correction of the clotting defect by this means has been noted for as long as three weeks.

The same precautions regarding surgical procedures apply here as in hemophilia. The disease is insidious in that the slightly abnormal laboratory tests provide a false sense of security, thus tempting one to try minor surgery or dental extraction. But even in mild deficiencies, hemorrhage may be profuse and prolonged. Perhaps the best criterion for judging the degree of bleeding that one can expect in such a patient is his history of past hemorrhagic episodes.

It has been estimated that perhaps 10 to 30 per

TABLE 4

CHARACTERISTICS OF PLASMA THROMBOPLASTIN FACTOR DEFICIENCY STATES

	AHF Deficiency	*PTC Deficiency*	*PTA Deficiency*	*Spaet Deficiency*	*Hagemann Deficiency*
Sex	Male; rarely female	Male; rarely female	Male or female	Male; ? female	Male or female
Hereditary Pattern	Sex linked recessive carried by female; transmitted to male	Similar to AHF deficiency	Dominant; high degree of penetrance with variable expression	? Dominant	? Dominant
Synonyms	Hemophilia	Christmas Disease Moena anomaly			
Soulier & Larrieu	Hemophilia A	Hemophilia B	Hemophilia C	Hemophilia D	
Aggeler, White & Spaet	Hemophilia (PTF-A)	Deutero hemophilia (PTF-B)	Trito hemophilia (PTF-C)	Tetarto hemophilia (PTF-D)	
Brinkhous	Hemophilia	Hemophiliod State A	Hemophiliod State B		
Pattern of Bleeding	*Depends on Clotting Time and Degree of Clotting Defect*				
Degree	Slight to very severe	Slight to moderately severe	Slight to moderate	Slight to moderate	None
Site	Joint, muscle, mucous membranes, post traumatic	Joints ±; post traumatic & post operative	Joints rarely involved; usually post surgical; hemarthroses +	Epistaxes, post traumatic & post extraction. No hemarthroses	
Effect of Transfusion	Transient; less than 24 hours	Prolonged; up to 3 weeks	Intermediate; 1 week ±	None	Transient; less than 16 hours
Clotting Time	Normal to 1 hour	Normal to 1 hour	Normal to 30 minutes	Normal to 30 minutes	Prolonged

Normal—platelets, prothrombin time, clot retraction
Usually Normal—Bleeding time, tourniquet test
Abnormal—Prothrombin consumption

cent of patients previously diagnosed as hemophiliacs have PTC deficiency. Of 15 such patients seen at the University Hospitals Coagulation Laboratory in the past 18 months, five have been found to have PTC deficiency. The disease has varied in severity from the mildest type of hemorrhagic disorder to a nearly incapacitating illness indistinguishable clinically from severe hemophilia.

Characteristics of the other three plasma thromboplastin deficiencies, all quite rare, are shown in Table 4.

The demonstration of considerable amounts of serotonin in serum after clotting has prompted investigation of its possible role in blood coagulation. It has been found to have no effect upon any stage of clot formation.[15]

SUMMARY

The identification of specific causes of hemorrhagic disease has assumed added importance as knowledge has increased regarding the role of plasma factors in blood coagulation. Treatment of these defects varies, depending upon the particular plasma element that is involved. By the use of laboratory tests now available, one can quickly identify and treat a bleeding state. A diagnostic plan that utilizes those tests has been outlined.

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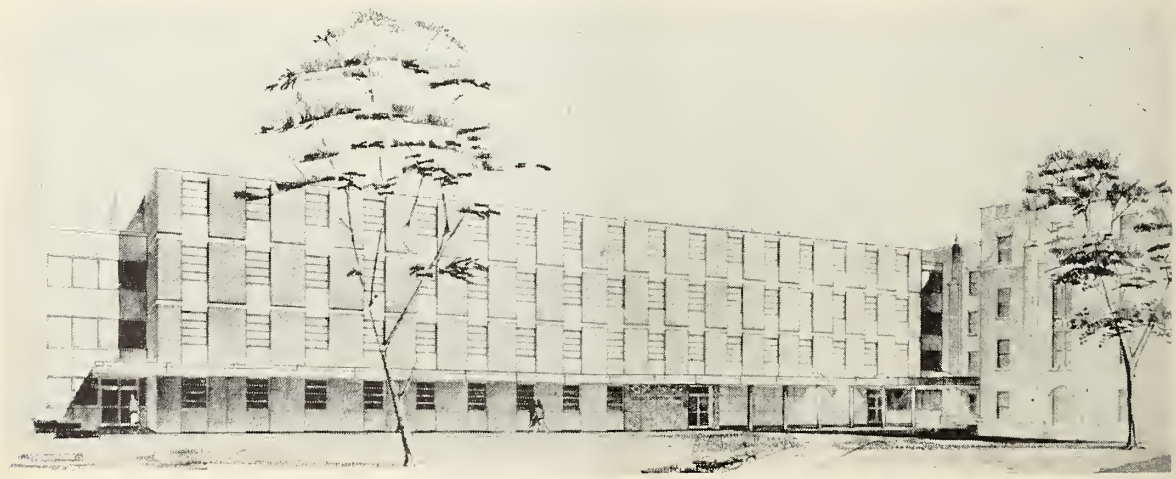
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NEW MEDICAL RESEARCH CENTER



This architect's drawing shows how the front wing of the State University of Iowa's $1½-million Medical Research Center will appear when completed next year. The building will be designed in the shape of a "T," with the above wing forming the cross-bar of the design. The stem of the "T" will be a three-story wing which will extend from the rear center of the one shown. The Medical Laboratories Building on the left and the University's General Hospital on the right will be connected by the front wing of the new structure.

Thyroid Carcinoma Today

JOSEPH A. BUCKWALTER, M.D.

IOWA CITY

A CURSORY REVIEW OF the relevant medical literature of the past 10 years leaves one with the impression that physicians have become increasingly concerned with thyroid carcinoma. Quite possibly, of course, the growth in incidence is more apparent than real. An increasing awareness of this lesion, on the part of physicians, has resulted in a heightened level of suspicion, which, in turn, has led to more diagnoses. Then too, diagnosis is more frequently followed by referral than in earlier years. Cases which previously would have been judged too far advanced for treatment are now being sent to clinics where radioactive iodine is available for diagnosis and treatment. In the seven years since the establishment of the radioisotope laboratory at the State University of Iowa, as many new cases have been examined there as were seen at University Hospitals during the preceding 20 years.

Whether, in addition to these factors causing an apparent growth in incidence, there is in fact a real increase cannot be determined on the basis of the information presently available. Winship's studies[14, 15] indicate its prevalence in children, and indeed it has recently been observed that carcinoma of the thyroid is one of the commoner neoplasms found during childhood.

With the use of radio-iodine, refinements in surgical technic which have made excisional procedures more feasible, and with our steadily expanding knowledge of the behavior of the lesion, management has become more complicated. More importantly, the institution of proper therapy enables us to achieve improved results. Thus, nowadays more than ever, it is important that we maintain a high index of suspicion so that we can make more diagnoses, and make them earlier in the course of the disease.

Five-year survival rates have been reported as low as 20 per cent and as high as 80 per cent. Of 77 patients with thyroid carcinoma in whom the diagnosis was established more than five years ago, 38 (just less than 50 per cent) have survived for five or more years, four of them currently being alive with neoplasm. Of the 39 patients who died within five years after diagnosis, carcinoma of the thyroid was thought to be the primary cause of death in 26.

The collection of such information is made difficult by the fact that most patients who die of carcinoma of the thyroid do so at home. That circumstance, incidentally, accounts for the small number of such lesions that are reported at autopsy.

Undoubtedly the main causes for the seemingly contradictory figures reported by equally competent observers is to be found in differences in criteria for diagnosis, local peculiarities in the selection of cases, and differences of methods used in analysis and tabulation. In addition, however, we must consider the possibility that the incidence and biologic behavior of the lesion may have some geographical orientation that is capable, at least to some degree, of accounting for the discrepancies.

CLINICAL FEATURES

In age incidence, carcinoma of the thyroid differs considerably from most other malignant neoplasms. In Table 1 can be found the numbers of patients in each ten-year age group who were

TABLE I[1]

AGE INCIDENCE OF NEW PATIENTS DURING FIVE YEAR INTERVAL

Age (yrs.)	*Patients*
0-10	5
11-20	8
21-30	12
31-40	7
41-50	9
51-60	10
61-70	15
71-80	7
81-90	6
	79

seen at University Hospitals during the last five years. Their mean age was 46.7 years; eight who were 14 years old or younger provided the basis for a clinical study of childhood thyroid carcinoma.[1] In children, at least one in every three masses in the thyroid gland proves to be a carcinoma. About one in seven of the patients with toxic or non-toxic goiter are men, but in 130 cases of thyroid carcinoma, one in two was a man. Consequently, it is evident that in a child or in a man, a mass in the thyroid region should be regarded as a carcinoma until it has been proved otherwise.

The presenting finding is most often a neck mass. The length of time since an asymptomatic, non-tender lump first made its appearance in the neck will vary from patient to patient. Dysphagia,

Dr. Buckwalter read this paper at the Postgraduate Conference on Thyroid Disease, in Iowa City, October 12, 1955. He is an Assistant Professor in the Department of Surgery at SUI.

dyspnea, hoarseness associated with vocal cord paresis, and a sense of fullness or pressure in the neck rarely make an early appearance, and are therefore infrequently the cause of the patient's initial visit to his physician. When the patient does complain of these symptoms, subsequent evaluation and treatment will usually reveal that one of three situations exists: (1) the mass has been present for a much longer time than the patient was aware; (2) the lesion is anaplastic and rapidly progressing; or (3) recent hemorrhage has occurred into a degenerating adenoma. Although newness of the mass and a rapid increase in its size are suggestive of carcinoma, the opposites of those characteristics do not constitute evidence that the lesion is benign. Goiters present for many years with no history indicating recent change in size often prove to be, or to contain, carcinomas.

The presenting finding is occasionally lateral cervical adenopathy. Previously regarded as "lateral aberrant thyroid tissue," such tissue in a lateral cervical node is to be regarded almost certainly as metastatic neoplasm. Originating as a down-growth from the region of the primitive pharynx, the thyroid anlage extends downward from the base of the tongue as a long tube, the thyroglossal duct. In the adult, nests of thyroid tissue may be found along the midline anywhere from the point of origin, the foramen caecum, to the final position of the thyroid gland, but not in the lateral cervical region. Lateral cervical-node involvement is commoner in young patients since it occurs more often with the well-differentiated papillary carcinoma. It was the presenting finding in three of eight children studied.[1] In the absence of an exanthem or other satisfactory explanation for the adenopathy, it is the responsibility of the physician to recommend biopsy of all such lateral cervical masses.

The inability of the experienced examiner to detect metastatic cervical-node involvement consistently complicates the preoperative evaluation of these patients.[6b] In a patient presenting with lateral cervical-node involvement, the primary lesion may be so small that preoperative examination fails to disclose any abnormality of the thyroid gland.

On palpation, there is a characteristically irregular, non-tender, uni- or bilateral enlargement of the thyroid gland, with movement on deglutition. Unilateral or solitary thyroid masses prove to be carcinomas more often than do multinodular goiters. However the surgeon, to his chagrin, not infrequently finds that a multinodular goiter which he had thought to be innocuous may in fact be carcinomatous in its entirety, or, more frequently, have a small focus of carcinoma in one area. This inability to predict whether or not any particular

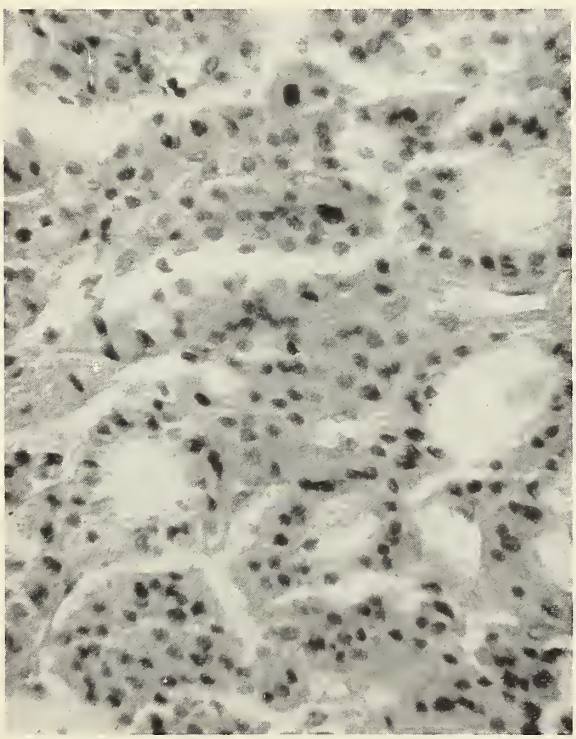


Figure 1A. Patient L. E. Anaplastic Hurthle-cell type carcinoma of the thyroid gland; primary lesion.

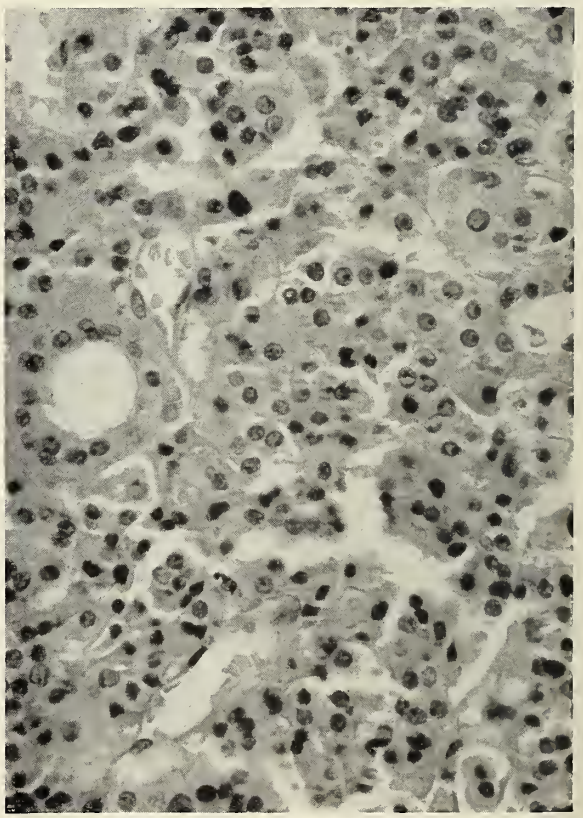


Figure 1B. Patient L. A. Metastatic lesion in lumbar vertebra.

thyroid mass is carcinoma has made it difficult for us to decide the indication for surgery in nodular goiter. It is to be emphasized that the indication for surgery is dependent upon the inability to distinguish the carcinomatous from the non-carcinomatous, rather than upon the concept that nodular goiter is a precancerous lesion. The incorrectness of the latter view has been suggested by Zimmerman and Wagner.[16]

Although most carcinomas are hard—occasionally having a "rock hard" consistency—the anaplastic ones infrequently are quite soft (Figure 1). The poorly differentiated Hurthle cell carcinoma shown in the picture occurred in L. E., a 42-year-old man who at the time of his admission to the hospital was paraplegic as a result of the destruction of his first lumbar vertebra by metastatic neoplasm. The primary lesion presented as a soft, diffuse enlargement of the left thyroid lobe. Fixation of the prethyroid muscles or other soft tissues to the thyroid mass is an ominous sign suggesting an advanced lesion, although chronic thyroiditis may occasionally cause such findings.

In the case cited above, the possibility of thyroid carcinoma came to attention only when signs and symptoms referable to the secondary deposits had appeared. Peripheral masses, pathologic fractures and pulmonary findings may likewise be the presenting findings, but such cases occur infrequently and usually mean that one is dealing with an undifferentiated, rapidly progressing lesion. Signs of thyrotoxicosis do not exclude the possibility of thyroid carcinoma in 2 of 130 cases there were unequivocal findings of toxicity.

DIAGNOSIS

The clinical features that have been described will in most instances permit one to arrive at a working diagnosis. It must then be confirmed by biopsy or by definitive surgery. Failure to maintain a high level of clinical suspicion has been responsible for most failures in diagnosis and has seriously jeopardized the patients' chances for cure. When a compatible histologic pattern is found in a patient with a thyroid mass and when there is nothing to suggest another primary site, the diagnosis can occasionally be established by the biopsy of a peripheral mass.

A roentgenogram of the chest, advisable in every patient, will be of assistance in establishing the diagnosis when a mass is noted within the superior mediastinum or when metastatic infiltrates are present. Skeletal surveys should be done as the other evidence of metastatic spread indicates. Bone metastases are found in one of three fatal cases of thyroid carcinoma.[13] The other neoplasms most frequently metastasizing to bone are carcinoma of the breast, carcinoma of the prostate, hypernephroma of the kidney and neuroblastoma. It may be of interest that an unusual case of apparent metastatic hypernephroma to the thyroid gland was seen at University Hospitals in 1926.[7]

Except in the rare patient with toxicity, thyroid function tests (BMR, protein-bound iodine and I^{131} uptake or excretion) is in the euthyroid range. Since carcinomatous tissue usually is less avid for iodine than is normal thyroid, a radioactive iodine survey frequently shows less uptake of I^{131} in the region of the lesion. It follows that with complete replacement of normal thyroid tissue, the total uptake of I^{131} is usually in the hypothyroid range. But since degenerating adenomatous tissue similarly takes up less I^{131}, this finding is of little value in differential diagnosis.

In my experience, Silverman needle biopsy[4] has sometimes proved a valuable tool in differentiating chronic thyroiditis from carcinoma. Because of the consistency of the tissue, results have been discouraging in those patients with a normal thyroid and in those with colloid, hyperplastic and nodular goiters. Since one must always question whether a representative specimen of tissue has been obtained, this procedure is chiefly of value when a positive result is obtained, i.e., when there are histologic findings of carcinoma or thyroiditis. An additional question remains to be answered, however. It concerns the importance of the contamination of the surrounding tissue with neoplastic cells as the needle is withdrawn from the carcinomatous thyroid.

Bone marrow studies have not been advocated as a part of the usual preoperative evaluation. That there are certain instances in which such studies should be considered is illustrated by the case of C. H., a 28-year-old man who had first noted a mass in the left side of his neck two years before admission. At the time he entered University Hospitals, there were multiple various-sized masses, the largest measuring 5 cm. in diameter, filling the left anterior cervical triangle, seemingly continuous with the left lobe of the thyroid gland and extending into the posterior triangle. Because of the patient's age, his excellent general condition and his history that suggested a well-differentiated carcinoma of the thyroid, sternal bone marrow smears were done (Figure 2A) in contemplation of possible radical extirpative surgery (thoraco-cervical total thyroidectomy).[11] The frozen sections obtained at the time of surgery showed that the lesion was a well-differentiated adenocarcinoma, predominantly papillary in pattern (Figure 2B). This case, although admittedly a rare example of early extension of a papillary lesion in a young individual, gives us one reason for questioning the concept advocated by Crile.[5, 6a] Since complete extirpation of the lesion was clearly impossible, total thyroidectomy and a modified type of left neck dissection was done, the objective being to remove all normal thyroid tissue and as much gross neoplasm as

possible. Eighteen months after surgery, the patient remains well, with no evidence of progression of the lesion.

PATHOLOGY

Confusion concerning the classification of the various types of thyroid carcinoma has led to a certain amount of muddled thinking regarding their proper management. We have used the sound classification suggested by Warren and Meissner,[12] which groups together those types of differentiated and undifferentiated carcinomas having similar biologic behavior and, to a degree, predictable prognoses. Keeping in mind that because of the gross and microscopic findings it is impossible to fit some lesions into this or any similar arbitrary classification, one nevertheless finds it desirable to have some point of reference for our clinical discussions and therapeutic recommendations. Assuming a workable classification, he should remember that no matter how well the criteria for classification are satisfied, the behavior of any lesion may altogether disappoint the predictions. Our understanding of many of the fundamental factors influencing the biologic behavior of this particular neoplasm, and of neoplasms in general, is still incomplete. Subdivision of the differentiated carcinomas seems of little clinical importance, since if enough sections are obtained from different areas, it is almost always possible to demonstrate varied histologic tissue patterns—papillary, follicular and structureless (consisting of sheets of cells). Therefore, when a lesion is designated as a papillary or follicular carcinoma, reference is properly being made to a predominant but not exclusive histologic pattern. The differentiated carcinomas tend to occur in young patients; they progress slowly, although there may be early regional node involvement, and they are late in metastasizing to bone and viscera. The case of C. H. described above indicates, however, that any specific case may prove the exception, for C. H. is a young man who had a well-defferentiated papillary carcinoma and sternal bone-marrow invasion. This case provides additional support for the proposition that differentiated thyroid carcinomas have full malignant potentialities and should be treated with utmost care.[5, 6]

The undifferentiated lesions comprising about 20 per cent of thyroid carcinomas have an age incidence and other characteristics similar to breast, gastrointestinal, pulmonary and other malignancies. Their behavior is more predictable, however, for they are characterized by relatively rapid progression, extensive local spread, and early bone and visceral metastases.

TREATMENT

Surgical extirpation of all gross neoplasm is the primary treatment for all differentiated thyroid carcinomas, except for those with distant spread

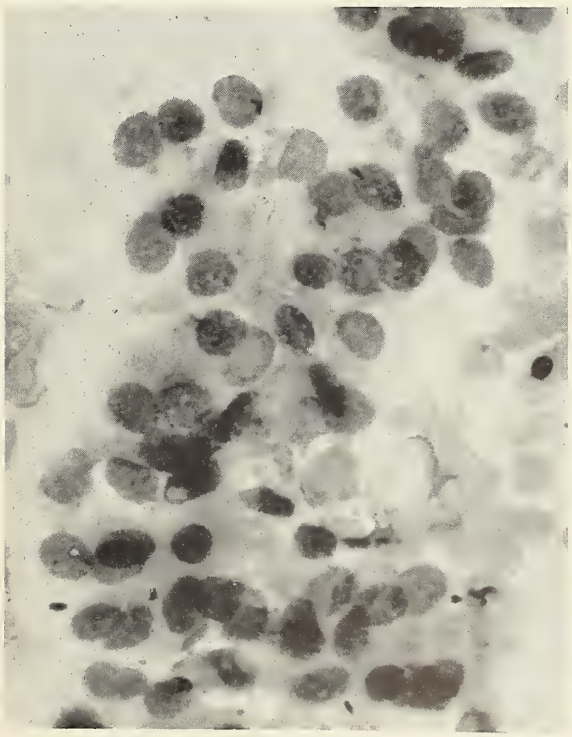


Figure 2A. Patient C. H. Masses of malignant epithelial cells noted in bone marrow smear.

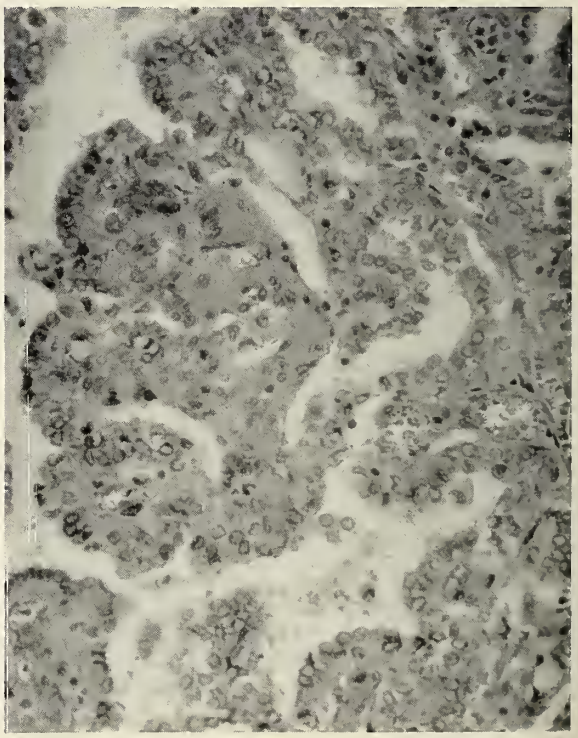


Figure 2B. Patient C. H. The primary lesion in the thyroid was a differentiated carcinoma, papillary type.

at the time of first examination. Few physicians concerned with this disorder will be inclined to dispute that statement, but there will be contrastingly great disagreement regarding the procedure that is necessary for a complete extirpation—one that will give the patient the maximum chance for cure without the morbidity and possible mortality that attaches to unnecessarily radical operations.

Though I recognize that our knowledge of this disorder is incomplete and that consequently there is room for differences of opinion, I shall undertake to outline courses of action that seem best to satisfy the requirements and to utilize the available methods of treatment.

Thyroid lobectomy should be done for the small, well-encapsulated lesion that is located within the lobe and which shows no evidence of capsular or vascular extension. This procedure is adequate for the carcinomas that not uncommonly are overlooked during surgery but show up in the fixed tissue sections. Total thyroidectomy and homolateral radical neck dissection should be done when there is gross capsular involvement, contralateral thyroid lobe extension, invasion of the adjacent muscles, or involvement of the regional lymph nodes. Total thyroidectomy readies the patient for possible radioiodine therapy, while eliminating the occult contralateral spread which is reported to occur in one of seven cases.[8] A conventional type of radical neck dissection is advised,[10] since the additional attendant morbidity does not seem sufficient to justify a less radical and less adequate cancer operation.

With contralateral node involvement without evidence of distant spread, a bilateral neck dissection is indicated. Whether this should be done in one or in two stages is usually determined by the age and general condition of the patient. There is a small group of patients—young, good-risk patients with extensive node involvement by well-differentiated lesions—in whom thoraco-cervical total thyroidectomy[11] would seem to have merit. Although it prolongs the operation considerably, the latter procedure can be performed without an appreciable increase in the morbidity associated with conventional neck dissection and total thyroidectomy.

It should be emphasized that the surgeon performing the first operation upon a patient with carcinoma of the thyroid has the best opportunity to do an adequate job and to obtain a cure. At reoperation, technical difficulties frequently make it impossible for him to excise the lesion completely. In this connection, adequate facilities and personnel for performing frozen-section tissue studies at the time of operation are indispensible to the surgeon performing thyroid cancer operations. When the surgeon is first consulted, the undifferentiated lesions may be so far advanced that complete surgical excision is impossible. Even if complete removal of the gross neoplasm is accomplished, early recurrence can be expected, and the prognosis is always poor. Nevertheless, surgery remains the treatment of first choice, and an attempt should be made to excise the neoplasm as completely as possible, for one cannot always classify a specific lesion as differentiated or undifferentiated. Furthermore, one cannot always predict the subsequent behavior of a specific lesion and predict with any assurance that the other forms of therapy would be relatively ineffective in dealing with it.

Adjunctive therapy must be employed when there are distant metastases or when complete extirpation of the gross neoplasm is impossible because of tracheal or extensive soft-tissue involvement. Each of the two available methods has advantages and disadvantages. The main disadvantage of radioactive iodine is that about 85 per cent of thyroid carcinomas show little avidity for I^{131} and therefore cannot be effectively treated by that means. Through total thyroidectomy, including the excision of the normal tissue which has the greatest affinity for I^{131}, the most favorable circumstances have been established for effective treatment of residual neoplastic tissue.

To increase the chances for effective treatment still further, one may or can permit the patient to become myxedematous, thus increasing the endogenous thyrotropic hormone production. Courses of antithyroid drugs and exogenous thyrotropic hormone can be given. When all of these measures have been taken, there are still only a few of the well-differentiated lesions that can be treated effectively. Radioactive iodine is entirely ineffectual in dealing with the poorly-differentiated ones.

At this juncture it is appropriate for me to mention that there is some evidence to suggest the possibility that one may accelerate the progression of metastatic thyroid carcinoma by increasing the production of endogenous thyrotropic hormone[9] which accompanies myxedema or courses of antithyroid drugs. In support of this concept it has been reported that progression has been arrested or improvement noted when large doses of thyroid extract (180-360 mg. daily) have been given to these patients.[9]

Occasionally, external radiation damages soft tissues, but it is relatively more effective in a much higher percentage of these lesions. Patients with extensive disease, whether differentiated or undifferentiated, sometimes have regressed following treatment; in a few cases this regression has been permanent. This turn of events occurs much less often in undifferentiated lesions. In patient L. E., whose lesion was a Hurthle cell carcinoma, with no uptake of radioactive iodine, was well controlled by means of multiple doses of external irradiation over a period of more than

three years. There are, however, other undifferentiated lesions which prove equally refractive to all types of therapy.[2, 3] In such instances, chemotherapy may play a useful role.

SUMMARY

Current concepts regarding the incidence, clinical features and diagnosis of thyroid carcinoma have been discussed. Reference has been made to the important histopathologic considerations in the management of patients with this disorder. Surgery is advocated as the primary form of treatment. But when there is distant spread or when the neoplasm has been incompletely excised, external irradiation is the most helpful adjunctive therapy. In a small percentage of differentiated lesions, radioactive iodine therapy can be expected to prove effective.

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Open Letter to the Nation's Doctors Regarding Medical Education Week —April 22-28

Since its founding in 1949, the National Fund for Medical Education has concentrated almost wholly on obtaining corporation support for the nation's medical schools. Progress has been slow but steady. Each year has seen an increase over the previous one, both in number and amounts of company contributions. In 1955 more than 1,500 business firms contributed nearly $1,700,000.

It is, of course, a long way from the $10,000,000 additional annual income required by the schools. But it has shown us what is necessary to win corporation support: a painstaking—and persistent—campaign of education to show business leaders their stake in medical education.

The encouraging part of the picture is the readiness of business leaders to support medical education "once they know the facts." As Colby M. Chester, chairman of the Fund's Committee of American Industry, once said: "If we can get them to sit still long enough to listen, we can get their support."

That is the problem. And it brings to mind the happy thought that nowhere is a businessman more approachable, or more likely to "sit still," than in a discussion with his doctor.

Now I am not suggesting that physicians badger their patients for contributions to the Fund. But I am wondering if doctors cannot be a great ally of the Fund in bringing, in some way, the needs of the medical schools to the attention of the businessmen among their acquaintances. Certainly no one is better qualified to speak authoritatively than doctors. Certainly no one could be more convincing.

Medical Education Week, it seems to me, provides an excellent occasion for beginning such an approach. It will be a period when the needs of the medical schools, as well as the achievements of medical science, will be discussed at meetings businessmen attend and in publications they read. Perhaps then, too, the approach can be followed up from time to time during the year.

Considering the role that the medical sciences have played in safeguarding the people's health, no one has to be timid or reluctant about broaching the subject of continued support for medical education. The testimony of the doctor, coming on the heels of appeals by industry leaders, can do much, in my opinion, to win the businessmen over. Once they are convinced, they are likely to become regular contributors to the Fund.

S. SLOAN COLT, President
National Fund for Medical Education

Management of
Acute Leukemia in Childhood

MARGARET S. LYMAN, M.D.

IOWA CITY

Though no one can be certain of the frequency with which the individual practicing physician has occasion to diagnose and treat acute leukemia in children, it probably is not very great. At all times, there are approximately 800 patients under treatment in the United States, and of them no more than 40 to 50 per cent are children.[1] But because the recorded death rate from leukemia has been rising steadily in this as well as in other countries, it nevertheless represents a major current health problem in the pediatric field. In addition, because public attention has been drawn to leukemia, parents have come to fear that their children have this "tragic" disease whenever they exhibit unusual symptoms of illness.

In cooperation with ten major centers in the United States, the Department of Pediatrics at S.U.I. is conducting a project for the chemotherapy of leukemia. Thus it is the purpose of this paper to discuss the diagnosis and treatment of leukemia and to call attention to the facilities available at University Hospitals for helping the physicians of this region in handling the cases that fall to their lot.

DIAGNOSIS

Generally, the diagnosis of acute leukemia in children is readily established, once suspicion has been aroused by such findings as unexplained fever, upper respiratory infections responding poorly to antibiotics, excessive fatigue and pallor, tendencies toward bleeding or bruising, bone and abdominal pain, or unusual loss of appetite.

Physical examination may provide such clues as enlargement of lymph nodes, liver and spleen, and presence of petechiae, bruises, stomatitis and paleness of the mucous membranes.

Laboratory studies of diagnostic importance include the hemoglobin determination, the total white blood count, the study of a blood smear with particular attention to abnormal cells and the presence or absence of platelets or an absolute platelet count, and a reticulocyte count.

Correlation of the physical findings and the laboratory test results will determine the need for examination of the bone marrow.

Dr. Lyman, a Public Health Service Research Fellow of the National Cancer Institute, reports upon the work being done upon the Chemotherapy Project of the Department of Pediatrics at the S.U.I. College of Medicine.

PROGNOSIS

Once the diagnosis of acute leukemia has been confirmed, it becomes necessary for the physician to inform the child's parents regarding the nature of the illness, the prognosis and the types of treatment available. Many parents have difficulty in accepting the diagnosis, or refuse to believe that it is correct. These reactions, the infrequency with which most practicing physicians have occasion to treat leukemia patients and the fact that the new drugs are available only at medical centers appear to make referral for inauguration of therapy nearly mandatory.

In many instances, some hardship is thus imposed upon both the parents and the patient. It would therefore seem reasonable for a mutual program of care to be established so that the treatment center and the family physician may cooperate. Such a program is advantageous to the family, educational for the physician and invaluable as regards progress in determining the efficacy of the newer agents in the treatment of the disease. Other disorders in children such as diabetes and congenital heart disease are now being given that cooperative type of care to everyone's satisfaction.

It is obvious that a common understanding about the nature of acute leukemia and the ramifications of its treatment must be reached by all the physicians who are to share in the management of the patient and the family, so that confusion and dissatisfaction may be avoided. Both of those reactions are easily aroused in parents who must face the tragic nature of the illness. It seems best to withhold a full explanation until the initial impact has been absorbed, for by and large, during the first interview parents appear to grasp no more than the concept of "no cure."

When the parents begin to ask questions, they are prepared to understand that although there is no cure, there are drugs available which will produce remissions in about 50 to 70 per cent of children with acute cases of the disease. These remissions may occur more than once in a given child and will be characterized by variations in well-being ranging from complete disappearance of any sign, symptom or laboratory evidence suggestive of leukemia to clinical improvement in many of the features that had been present before treatment was started. These periods of well being may

last only a few days or weeks, or they may last many months, during which time the child may be expected to live in normal fashion.

If given specific treatment, approximately 50 per cent of patients may be expected to live 12 months. Ten per cent will survive as long as 19 months,[2] and a few will survive into the second or third year after the onset of the disease. If given no more than supportive therapy, 50 per cent will live no longer than four months from the onset, and only 10 per cent will survive 11 months. The middle two-thirds of patients can be expected to survive approximately two to eight months without treatment.[3]

There is no evidence to suggest that the fatal outcome would be altered if the diagnosis were established and treatment started sooner than is usually the case.

During the additional months of life afforded by specific therapy, the child usually enjoys good health, though his susceptibility to the common childhood diseases is normal. The parents are provided with the satisfaction of knowing that everything possible is being done for the child and are given an opportunity to adjust to the inevitability of a fatal termination. It may be argued that it is not fair to parents for us to sustain their hope concerning a forthcoming "cure," yet our experience in other diseases such as bacterial infections and pernicious anemia suggests that such hope may have some slight justification. But at any rate, parents will continue to hope, whether or not they are justified in so doing.

THERAPY

There are three major categories of drugs available for the management of acute leukemia in children. The first group includes ACTH and the adrenal cortical steroid compounds cortisone, hydrocortisone and prednisone. The second group consists of the antimetabolites of folic acid, or the folic-acid antagonists aminopterin and amethopterin. The third group is comprised of the purine antagonists 6-mercaptopurine, thioguanine, 6-chloropurine and azaserine. One of the drugs from each of these major groups may be effective in the same patient, thus, theoretically at least, providing an opportunity for three successive drug-induced remissions. When a drug from one group fails to provoke a remission, however, another from the same group cannot be expected to be any more effective.

Certain properties of the anti-leukemic agents determine, to a large extent, the selection of the one with which therapy should be initiated. The steroid compounds act rapidly—within a few days to two weeks—and significantly reduce bleeding tendencies. They will produce remissions with about the same frequency as the other agents, but in general the remissions will be of shorter duration. The anti-metabolites require at least two weeks, and generally from four to eight weeks, to influence the disease process. They will not combat a tendency to hemorrhage, and they may have an aggravating effect. But the remissions that they produce tend to be longer. The folic-acid antagonists are somewhat more toxic than the purine antagonists, and the dosage of the former is therefore more difficult to regulate. Currently being studied in a uniform fashion at ten centers throughout the country, including the Pediatric Department at S.U.I., is a combination of 6-mercaptopurine and azaserine which is thought to produce a greater number of remissions than any of the antagonists given alone.

It may be seen, therefore, that if a patient has a fulminating onset of the disease, with hemorrhage of considerable severity, and appears to face a rapid termination, one of the steroid drugs should be selected. The particular agent is chosen for technical considerations, such as ease of administration. In general, cortisone and hydrocortisone, 150 to 200 mg. daily, or prednisone, 40 to 100 mg. daily, is given orally in divided doses until evidence of a remission appears in the peripheral blood or in the marrow. It is then decreased slowly and discontinued completely. It has not been shown that maintenance of steroid therapy throughout the remission prolongs it to any significant degree. Adverse side effects such as edema and hypertension may be avoided by restriction of dietary salt and administration of potassium supplements, such as Potassium Triplex® or potassium chloride, in amounts sufficient to supply from one to three grams of potassium a day.

Many physicians have found that in occasional patients more than one "cortisone remission" can be induced, and that occasionally the steroids will produce cessation of bleeding without exerting any other demonstrable effect upon the disease itself. Steroids therefore are largely reserved for those patients who are bleeding, who are not expected to survive more than a few days or weeks, and who are resistant to other agents.

For the patient whose disease is diagnosed in the early stages, who is not having significant bleeding, and who appears to be able to tolerate from four to eight weeks of therapy, one of the antagonists becomes the drug of choice. The selection is arbitrary, for no striking differences between the two groups have been demonstrated with respect to incidence and duration of remission. Amethopterin is generally preferred over aminopterin in that it is somewhat less toxic and that the dosage is more easily adjusted. It is given once daily, in amounts varying between 1.25 and 5.0 mg., the dose depending upon the size and individual tolerance of the patient. Toxic manifestations commonly seen are nausea, vomiting, severe anorexia and small, circumscribed, red-bordered

ulcerations on the buccal and gingivival mucosa. Omission of the drug for 24 to 48 hours generally results in improvement or complete disappearance of the lesions. The medication can then be resumed at the same dosage as before or at one-half of the former dose for a few days while the physician determines the patient's maximum tolerance.

These ulcerations are not alarming in themselves, but they may be an indication that similar ulcerations are forming throughout the patient's gastrointestinal tract.

Amethopterin is continued daily throughout the remission, and is replaced by an agent from one of the other major groups when relapse appears. Intermittent therapy with the antimetabolites has not been shown to be of greater value than continuous therapy, for resistance generally develops after the first period of administration.

Of the purine antagonists, 6-mercaptopurine is the only one available commercially at the present time. It is as effective as the other members of the group, and it is relatively non-toxic. Bone-marrow depression may occur after excessively high dosages have been administered for a considerable period of time. Rarely, a patient may develop mouth lesions or have symptoms referable to the gastrointestinal tract similar to those seen with the folic-acid antagonists. The 6-mercaptopurine is administered in a dosage of 2.5 mg. per kilogram of body weight once daily, and as with amethopterin, it is continued throughout the remission.

One of the newest of the anti-leukemic agents is azaserine, available for experimental use only in the approved treatment centers such as the Chemotherapy Project at the S.U.I. Department of Pediatrics. It has been found to have a synergistic action when combined with 6-mercaptopurine, though very little effect when used alone. Preliminary trials[2] suggest that the combination of the two agents may produce remissions with greater frequency and of longer duration than 6-mercaptopurine alone. Azaserine is administered at a dosage level between 1.0 and 2.5 mg. per kilogram of body weight daily, together with 6-mercaptopurine at a dosage of 2.5 mg. per kilogram of body weight. Both drugs are given in a single dose daily, usually after a meal to lessen the locally irritative effects. Signs and symptoms of toxicity may appear as profound anorexia, nausea, soreness, and redness and ulcerations of the tongue and of the buccal and gingival mucosa. A somewhat lower dosage is then reinstituted, and the limits of tolerance are determined for the patient being treated. It has not been found necessary to discontinue 6-mercaptopurine during these periods of toxicity. As with the other antimetabolites, the combination is continued throughout the remission.

HOSPITALIZATION, TRANSFUSIONS AND LABORATORY TESTS

In our experience, it seldom has been necessary to hospitalize a child with leukemia except for initial diagnostic studies and the institution of therapy, and during the terminal period. Blood transfusions are frequently required during the initial period of treatment and are given in sufficient quantity to maintain a hemoglobin level of 9 Gm. per cent or higher. A level of hemoglobin which is becoming stabilized without transfusion or is beginning to rise suggests an early remission. Subsequent occasional transfusions may be required when relapse occurs, but they are generally administered in the out-patient clinic.

Antibiotics are prescribed only when there is an associated infection or when the white blood count has been depressed to extreme levels and infection is feared.

During the early period of treatment, hemoglobin determinations and white blood counts are made at two to four day intervals. The hemoglobin level provides the indication for transfusion, and a white blood count below 2,000 cells per cu. mm. of blood suggests the need for a temporary cessation of antimetabolite therapy. As soon as the white blood count has become stabilized—even at the 2,000 level—the antimetabolite is resumed. During remission, the level of white blood cells circulating will vary from one patient to another, but the differential will show a normal number of polymorphonuclear leukocytes. Rises in the platelet and reticulocyte counts may be sensitive indicators of early hematologic improvement.

Supplementary vitamins, and liver and iron preparations are contraindicated in the treatment of leukemia, for at least one of the antagonists, amethopterin, is exerting its effect by inhibiting the folic acid that is present in liver extracts and in some vitamin preparations, and adequate iron will be available from the blood transfusions and blood destruction.

When, by a relapse, the patient has demonstrated resistance to one of the three major groups of drugs, an agent from another group is started. In prolongation of life, this sequential form of treatment has proved to be of greater value than the simultaneous use of drugs from two or three of the groups.

At any time while one of the antimetabolites is being used, one may need to resort to one of the steroids in order to control bleeding or to check a rapid advancement of the disease process. Under such circumstances, it seems reasonable to abandon the antimetabolite temporarily, with the hope of being able to use it again later. It has been found that there is approximately a two-week lag between replacement of the bone marrow by leukemic cells and the appearance of a falling hemoglobin and platelet level in the peripheral blood.

Examination of the bone marrow at about two to four week intervals during a remission will permit a diagnosis of impending relapse and the institution of a different medication before the patient's condition deteriorates to such an extent that hospitalization and energetic therapy become necessary. Often it will be possible thus to obtain a second or third remission before the patient has shown moderate or severe clinical relapse.

THE PROSPECT

With the tremendous amount of productive research now being conducted in the field of leukemia and with the simultaneous clinical evaluation of new drugs being carried on at medical centers throughout the country, it is reasonable for us to hope that answers will be found rather soon for such problems as the resistance which leukemic cells develop to the presently available agents, the difficulty of accurately evaluating any new agent and the mystery of the etiologic factors. Indeed those solutions may be found in time to help those children who now have leukemia or who will become victims of the disease in the near future.

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The Dermatologic Management of

Otitis Externa

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OTITIS EXTERNA OF THE diffuse type, excluding localized otitis externa or furunculosis, presents a problem in morbidity as well as in treatment. This disorder has frequently been recalcitrant and sometimes poses a dilemma for the general practitioner, the otologist and the dermatologist. In many patients the disease entity may persist for years, with irregular episodes of acute exacerbation accompanied by discharge, edema of the canal walls with consequent pain, and later with a persistent itching that is at times maddening.

Quayle[1] states that in his tropical practice during World War II, 39.9 per cent of ear, nose and throat inpatients (excluding upper-respiratory infection and acute tonsillitis patients) and 30.3 per cent of referral outpatients were under care because of otitis externa. Syverton[2] likewise noted the adverse effect of the tropical climate on the production of external-ear disease and did an excellent piece of work on the flora in normal ear canals as well as in the ears of patients afflicted with otitis externa. In the temperate climate of the Midwest, the incidence is naturally much less, but the problem of management is still present.

ETIOLOGY

The cause of external otitis is obscure. The anatomy of the external ear canal, with its varying caliber, its tortuosity, its lack of ventilation, and its secretion of wax, in addition to its accumulation of other detritus, provides an ideal breeding site for bacteria and fungi. Yet since 1944, practically all of the authors who have written on the topic have been of the opinion that the role of the fungi cultured from patients with this disorder can have been no more than minor, and, indeed, may for the most part have been saprophytic. Syverton *et al.*[2] feel that the following may be accepted as causative: Ps. aeruginosa, Staph. aureus hemolyticus, Kleb. ozaenae, Phytomonas, Aspergillus and possibly Proteus, M. tropicalis, and Actinomyces. In their series the preponderant percentage of positive cultures in this group were found to be Ps. aeruginosa (66 per cent) and Staph. aureus hemolyticus (18 per cent). Senturia[3] was also convinced that Ps. aeruginosa is the most prevalent organism, and he also noted that this organism had persisted in treatment failures. He mentioned that all the fungi cultured in his series were from three genera of very slight pathogenicity—Aspergillus, Actinomyces and Monilia.

Cline,[4] Kos[5] and Collins[6] have all stressed anatomy, microscopic and gross, as being important in inviting bacterial invasion, and the latter two have mentioned the need for removal of detritus from the antero-inferior tympano-meatal sulcus.

Changes in the pH from the usual "acid mantle"

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reaction to alkaline has been noted by many investigators, and this occurrence has been felt to be associated with the dermatitis, if not favorable to the inception of the infection.

Local trauma from various "tools" such as match sticks, hairpins, fingernails, cotton swabs, etc., is without doubt an important factor in both causing and perpetuating irritation and secondary infection in an itchy canal. As Cornbleet and Schorr[7] have noted, one sees many patients in whom there is itching without any visible evidence of infection or dermatitis.

In studies carried out by Baird and Gaulton[8] and by Way, Memmesheimer and Rowe,[9] allergens, both bacterial and dietary, have been suspect in provoking acute flare-ups.

Various dermatoses make up the bulk of the patients with otitis externa who are seen in the Dermatology Clinic at University Hospitals, Iowa City, the commoner of them being seborrhea, psoriasis, nummular eczema and simple irritation. Many others, including recurrent erysipelas, generalized exfoliating dermatitis and eczematous contact-type sensitization, may initiate the disorder.

On a few patients during the past year, studies were run on bacterial flora, and the results were in general agreement with those reported in the studies mentioned above. In our group of 14 patients, 79 per cent, had Staph. albus hemolyticus; 29 per cent Ps. aeruginosa; and only 15 per cent C. albicans. This sampling was not taken during a single season, but throughout the year. Of this group of patients, ten (71.4 per cent) had seborrhea; two had psoriasis; one had simple irritation from wearing a hearing aid (not due to contact dermatitis); and one had recurrent erysipelas. The patient last referred to, and whose ear is shown in Figure 1, exhibits the marked edema and moisture at the external auditory meatus that is seen in so many patients. The ages of the patients varied from 24 to 70 years, and the average age was 46 years. The duration of their symptoms had been from three months (simple irritation from the hearing aid) to 14 years (one of the psoriatics).



Figure 1. Note the moisture of the external auditory meatus and the marked edema at this site, with distortion of the orifice.

BASIC DERMATOLOGIC CARE

For the routine care of a dermatitis in the Dermatology Clinic, we have established dicta based upon the presenting appearance. Cases are arbitrarily divided into (1) Acute, (2) Subacute, and (3) Chronic. Obviously no sharp line of distinction can be drawn between the acute and the subacute, or between the subacute and the chronic, but when in doubt, the practitioner should err on the side of caution, using the treatment recommended for the more acute of the two.

Acute dermatitis is characterized by erythema, edema, oozing, crusting and possibly vesiculation. The treatment is to consist of *COOL* dressings of 2 per cent boric acid, 0.25 per cent acetic acid, 1:40 or weaker Burow's solution, 1:1000 silver nitrate, or normal saline.

Subacute dermatitis is characterized by the subsidence of the acute conditions, and there may have been an onset of scaling and thickening, as well as early lichenification. In the treatment of subacute dermatitis, one employs lotions, powders, colloid baths, liniments and bland oils. Later in this stage, simple ointments such as ichthammol in zinc oxide ointment, boric acid ointment, etc., may be used.

Chronic dermatitis is characterized by thickening, scaling and lichenification. Treatment includes the milder ointments such as ichthammol and naftalan, and possibly the more "stimulating" pine and crude coal tars.

Hydrocortisone, 1 per cent, in an oleaginous base or in polyethylene glycol ointment USP XV, may be used in any except the acute stage. In the chronic stage, weekly doses of 75 to 100 r of x-ray will help both objectively and subjectively. They should be given by a trained and qualified person, and it must be thoroughly explained to the patient that the x-ray treatments are no more than an adjunct, and that the topical skin treatment must be adhered to.

MODIFICATION FOR THE TREATMENT OF OTITIS EXTERNA

Basically the above rules can be utilized for the dermatitis of otitis externa. However, to avoid the "caloric effect" and the consequent vertigo that may distress the patient, one should make sure that the wet dressing used in irrigating the canal is at body temperature.

During the acute phase, there should be daily or twice-daily irrigations with 0.25 per cent acetic acid for the purpose of flushing out debris. And afterward, in each instance, the entire canal should be *blotted* dry, rather than wiped. After the blotting process, one should make a topical application of 2 per cent aqueous gentian violet, a hydrocortisone-bacitracin-polymyxin B sulfate solution, a 1 per cent hydrocortisone in polyethylene glycol ointment,* or an acetic acid antibiotic solution.**

The physician must be careful to see that on the tip of his applicator is a cotton tuft which is less than half the diameter of the canal, to avoid undue trauma. The insertion of wicks may irritate the inflamed canal walls. The patient must be repeatedly warned against using his fingers, applicators or any other foreign agent in his ear canals. Sedation with aspirin and/or codeine may be necessary at night to control the distress resulting from pain or pruritus. The more acute the dermatitis, the more frequent should be the irrigations. Thorough flushing and cleansing are paramount. If a tympanic perforation (a rare complication) develops, cleansing may have to be done under suction. This task should always be done under direct vision, and the physician must be facile in using a head mirror so as not to injure the wall of the canal as he is cleansing it.

Kos[5] has pointed out that many of the supposed inhibitors or destroyers of offending organisms actually possess little such power. That fact is illustrated by the indiscriminate claims which appear to give a wide variety of drugs essentially the same clinical value. He emphasizes that local care—i.e., mechanical cleansing—is of greatest importance, and points out that as in other therapies, any mode of treatment can succeed only if the doctor secures the full cooperation of his patient. As has been indicated by Sulzberger and Rein,[10] and by Baer and Litt,[11] the addition of hydrocortisone to the topical therapy of cutaneous disorders has been markedly helpful in the control of inflammation and itching.

In the less acute stage, an intelligent patient or a member of his family can be instructed to do simple irrigation of the canals at home, thus permitting the patient to make fewer visits to the physician's office. Three tablespoonfuls of household vinegar can be added to a quart of boiled water for the irrigation solution. The outer ear or concha can be grasped at its upper pole and pulled upward, outward and back to help straighten the canal. An infant's enema syringe with a hard rubber tip can be filled with the solution of acetic acid and then, with the distal end of the tip lying against the tragus, a stream of the solution (at body temperature) can be directed down the canal. Then, after two or more rinses, the patient can use the same technic, with an empty syringe, to blow room air into the canal to aid in drying it. Afterward, one of the ear drop preparations may be dropped into the ear, but under no circumstances should the patient apply anything digitally or with an applicator beyond the outer limits of the external auditory meatus.

The concha, if involved, frequently subsides to a more chronic stage of dermatitis prior to the skin of the otic canal. Consequently, ointments suitable for the stage of the dermatitis may be used on the concha while the canal is still undergoing therapy for a more acute dermatitis.

If psoriasis, seborrhea or some other dermatologic condition is coexistent with an involvement of the ear canal, it should receive proper treatment at the same time.

During the subacute phase (usually one or two weeks), the precepts for dermatitis in general may be followed, especially the use of bland oils and, later, 1 per cent hydrocortisone in an oleaginous or polyethylene glycol base.

During the chronic phase (which may be of three or more weeks' duration, depending upon the basic condition), the care that is usual for the stage of dermatitis may be used. Hydrocortone ointment probably remains the best agent that one can put down the canal. Tars, however, might do as well or better on and around the concha. Topical sensitivity to tar must be looked out for, and of course the high-sensitizers such as the -caines, the "systemic" antibiotics and the antihistaminics should not be employed for fear of cutaneous sensitization. X-ray may be used.

The patient must be impressed with the fact that the disorder has a tendency to recur, even following minor attacks. He may frequently be able to clear or abort the attack by means of hydrocortone or other topical medication. Should response be slow or nil, he must return to his physician without delay.

SUMMARY AND CONCLUSIONS

Diffuse otitis externa is essentially a dermatitis and should be treated as such. Secondary bacterial invaders may require additions to the treatment. Fungi play a very minor role in external otitis. Avoidance of chemical and mechanical irritation is essential.

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* The pharmacy at University Hospitals has prepared the following formula for us to employ:

Hydrocortisone acetate	1 per cent
Bacitracin	500 u/cc.
Polymyxin B sulfate	1 mg./cc.
In normal saline	

**Our formula is as follows:

Acetic acid	1 per cent
Bacitracin	500 u/cc.
Polymyxin B sulfate	1 mg./cc.
In normal saline	

N. B.: Solutions containing bacitracin are good for one month when refrigerated.

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A Report on the Recent

Research in Nutrition at the State University of Iowa Hospitals

PREPARED BY MEMBERS OF THE DEPARTMENT OF NUTRITION

Nutrition research at the State University of Iowa Hospitals, under the direction of the late Dr. Kate Daum, has been both broad and intensive. Many of the projects have been undertaken in collaboration with other departments of the College of Medicine, and phases of both normal and abnormal nutrition have been investigated.

BREAKFAST STUDIES

The most widely publicized work has consisted of the Breakfast Studies. The Nutrition Department in conjunction with the Department of Physiology made continual examinations, over a period of five years, of aged men, college students and adolescent boys who were being fed adequate but varied breakfasts. As demonstrated by the subjects' physiologic responses, the best breakfast was found to be that which included one fourth of the daily calories and protein.[1, 2] The older men and the college students didn't tolerate large breakfasts well, but the adolescents appeared to thrive as well on them as on the basic meal.[1, 2, 3] Omission of breakfast was accompanied, in all three age groups, by decreased choice-reaction time, increased neuromuscular tremor and decreased work output.[4]

Protein, vitamin and mineral balances on the basic breakfast were good throughout the study, regardless of the source of the protein.[5, 6, 7] It was apparent that the aged men could be maintained in positive balances as long as the optimum intake was maintained. Although absorption was lower in the aged group than in the younger ones, good nutrition up to 83 years of age was shown to be the consequence of a good intake of food.[8, 9]

Follow-up studies of blood sugar levels demonstrated that hypoglycemia could be prevented by a breakfast that included at least one fourth of the daily protein intake.[10] Blood sugar was maintained above fasting levels in the late morning hours by means of a minimal breakfast protein intake of 16 Gm. and an optimum intake of 20 Gm. There was no difference in response when plant proteins were substituted for animal ones.[11] Similar results were obtained from a study of diabetic patients.[12]

ASCORBIC ACID STUDIES

The Nutrition Department has undertaken numerous studies of ascorbic acid excretion in relation to stress situations. Again in conjunction with the Department of Physiology, it followed urinary ascorbic acid excretions during and after exposure to cold. Healthy young men subjected to acute cold were found to excrete increased amounts of ascorbic acid in their urine. Administration of huge doses of ascorbic acid did not prevent this loss, but rather, it delayed the excretion until the cold exposure period had been terminated.[13]

A subsequent study indicated that plasma vitamin C levels were lowered following the subject's exposure to cold, and that urinary excretion of ascorbic acid increased during the stress situation, but gradually diminished during the post-cold period.[14]

A pantothenic-acid deficiency state (under study by the Department of Medicine) provided another stress situation.[15] Pantothenic-acid deficiency was produced by the use of a synthetic formula that was adequate in all other respects and by the administration of a pantothenic-acid antagonist. Again, ascorbic acid excretion increased, and blood levels of ascorbic acid were lowered.[16]

The relationship of vitamin C therapy to gingi-

vitis was also investigated.[14] Patients with gingivitis, low plasma ascorbic acid levels and high petechial counts responded well to the administration of ascorbic acid. Blood levels rose, petechiae decreased and gingivitis disappeared. This work was done by the Nutrition Department in collaboration with the College of Dentistry.

GASTRECTOMY STUDIES

Another type of research that Dr. Daum directed concerned patients upon whom total or partial gastrectomies had been carried out for carcinoma or ulcers of the stomach. The patients studied were for the most part in an elderly age group, for they ranged in age from 46 to 86 years, and the investigation was of ten years' duration (1945-1955).

Dr. Daum was co-author of a paper presented by Dr. E. S. Brintnall, head of surgery at the Iowa City VA Hospital and also an affiliated staff member of the SUI Hospitals, in May, 1955, at an anniversary meeting of the International College of Surgeons in Geneva, Switzerland. Its title was "An Evaluation of Total Gastrectomy."

The investigation which Dr. Daum had conducted showed that in gastrectomy patients calcium and phosphorus utilization did not seem impaired by such factors as possibly lowered intestinal acidity, increased intestinal motility and loss of fat in the stool. Storage of those two minerals was found to be taking place.[17, 18]

Nitrogen utilization was followed in 19 patients upon whom gastric resections had been performed. Twelve of the 19 gained or maintained their postoperative weight, and nine of them showed increases in plasma proteins up to the normal range. All except two of the patients who had undergone gastric resections maintained nitrogen equilibrium or positive balance by ingesting 0.25 Gm. nitrogen or 1.6 Gm. protein with 40 calories per kilogram of body weight.[19]

Studies of the plasma lipid levels and fat and cholesterol excretion in gastrectomy patients indicated that such an individual has an essentially normal blood lipid picture, except for the fact that the cholesterol ester is low. All the patients showed a lower fecal cholesterol value, but only one showed an abnormal fat excretion.[20]

Likewise, it was found that in gastrectomy patients the urinary excretion of thiamine and N^1-methylnicotinamide did not differ from the ranges of urinary excretions of those vitamins for normal subjects as reported by various other investigators.[21]

An interesting case history was presented in a recent comparative study of the utilization of foods in a pair of identical twins, one of whom had had a total gastrectomy, and the other a vagotomy. The findings indicated a somewhat improved handling of fat by the twin on whom a vagotomy had been performed. Otherwise, no significant differences in retentions were observed. Subsequent studies on these twins are planned.

Many investigators have concluded that the nutritional problems following gastrectomy can be attributed, at least in part, to an inadequate intake. Studies on gastrectomy patients at the University of Iowa Hospitals likewise emphasize the importance of a proper food intake in diminishing the nutritional problems related to gastric resections.

OBESITY STUDIES

Studies on obesity that are just being brought to conclusion were also initiated under Dr. Daum's supervision. The work was undertaken in an effort to show the safety of a planned weight-reduction regime, and to determine the degree of physiologic stress which a patient undergoes during such a period.

Planned dietary programs geared to the individual's needs resulted in consistent weight losses of two pounds per week. The degree of caloric restriction differed from subject to subject, depending upon previously determined maintenance requirements. The investigators used a predicted weight loss of one pound for every 3,500 calories below maintenance levels in determining the degree of calorie restriction.[22] The program has produced happy results for numerous subjects who have had to maintain reduction levels for over a year and a half.

For all subjects, determinations were made of (1) calcium, phosphorus and cholesterol balances, and (2) physiologic response (work output, grip strength, neuromuscular tremor and choice-reaction time). Studies of blood-sugar levels, and comparison of arterial and venous samples appear at this date to lend little support to the delta-glucose theory of appetite control.

STEATORRHEA INVESTIGATIONS

Steatorrhea has attracted the interest of the members of both the Department of Internal Medicine and the Nutrition Department. Several investigations have been carried out upon patients diagnosed as having sprue or ideopathic steatorrhea. Cortisone therapy, multiple vitamin therapy and diet were evaluated in these studies. Cortisone appeared to produce the most marked subjective improvement,[22] although there was still a large excretion of fat and cholesterol in the stool.[22, 23] Calcium and phosphorus absorption improved during the administration of cortisone, and positive nitrogen balances were maintained throughout the study.[24]

In two of the cases that were studied, a multiple vitamin therapy resulted in significant improvement in calcium, phosphorus, fat and cholesterol absorption.[22, 24] The SUI studies confirm the work of the other investigators who used the gluten-free

diet in the treatment of this disorder. Significant improvement was noted in the calcium, phosphorus, fat and cholesterol absorption during the institution of this regime.[22, 23, 24]

Present work being carried on in the Department of Nutrition concerns the effect of a high gluten intake on steatorrhea patients. Although more work has to be done along this line, the rat studies now in progress appear to show a change in the gastrointestinal wall. Normal subjects fed diets high in gluten and fat show little apparent change. Sprue subjects placed on the gluten-free diet and cortisone confirm previous studies done in this laboratory.

OTHER CURRENT WORK

At the present time, another pantothenic-acid deficiency study is under way. Again, nitrogen, cholesterol, total lipids, ascorbic acid, thiamine and niacin balances are being determined. A parallel study on rats is going forward, and similar metabolic data including sodium and potassium excretions are being secured.

Contemplated work includes the investigation of (1) the thiamine, riboflavin and niacin needs of severely burned patients; (2) the response of tube-fed patients to formulas providing differing proportions of protein, fat and carbohydrate; and (3) the effects of sugar-alcohol additives upon blood-sugar levels.

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Transportation of the Ill and Injured

JACK MOYERS, M.D.

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From time to time one is asked to attend in a receiving room patients with a variety of afflictions who have been transported over varying distances under may different circumstances. Sometimes, a complication of the illness or injury is directly attributable to the trip; in other cases, the condition of the patient has worsened as the result of his not having been provided adequate care enroute; and in still others, the paucity of information sent along with the patient occasions unnecessary delay in the resumption of treatment.

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When a physician decides that one of his patients should be moved, he is motivated by the belief that the facilities, equipment, and/or medical and nursing attention essential to the individual's recovery are not available to him and can be found elsewhere. But he should remember that the move is justified only if the patient is virtually certain to arrive in no worse condition than that in which he left home. Moreover, through judicious therapy and proper preparation, a patient who is a poor candidate for transfer today may be able to make the journey tomorrow without untoward incident. If, indeed, he should be moved at all, the proper time for the trip should be dictated by

a full consideration of his illness, and the treatment immediately available, as well as the care available at his destination.

INITIAL TREATMENT

The first error is failure to institute vigorous care and to completely utilize the facilities available at the initial site. With each minute of delay, shock from blood loss becomes more hazardous and treatment becomes more difficult. Ventilation and oxygen therapy are much more effective when undertaken early. Simple upper-respiratory obstruction, usually easily remedied, can develop within a few hours into a multiple problem of acid-base imbalance, gastrointestinal distention, disturbance in cardiac rhythm and damage to the central nervous system. The insertion of an oropharyngeal airway can obviate the necessity for intensive treatment with fluids, intestinal suction, etc. The proper splinting of a simple fracture is a means for preventing its becoming compounded and for avoiding complications such as local hematoma, infection, nerve damage and circulatory collapse. Delaying the institution of conventionally sound treatment, on the other hand, may result in problems that are more difficult to treat and more threatening to the patient than was the affliction for which he was originally attended and for which he was transferred.

A second failure is the assumption that the confines of an ambulance give patients some sort of immunity against progress of disease processes and complication of injuries. Patients probably are always changing either for better or for worse, even though we may sometimes be unable to detect such alterations. We must consider the sick person as a continually changing, dynamic organism. The pathologic and physiologic processes which we observe, qualitate, quantitate and categorize into diagnoses are not necessarily what they were two hours earlier, nor what they will be when another two hours have elapsed. Observable changes may occur within five minutes; but alterations may defy observation for many hours or several days. Moreover, it cannot be expected that we shall always be able to predict the factors that will initiate change in a patient. It is certain, however, that all patients will benefit from our abilities to observe, analyze and predict.

The elderly patient with a fractured hip serves as a good example. Because the fracture is a source of pain, the physician gives him morphine. The resultant respiratory depression may not be observed if the patient is put into an ambulance shortly after having been given an injection of the opiate. While he is being transported, ventilation may become impaired as a result of pharyngeal obstruction and central nervous system depression. To overcome this obstruction, the patient makes strong inspiratory efforts, and as a result draws air not only into the trachea but also into the esophagus. The stomach gradually becomes dilated until it can hold no more. Silent regurgitation follows, and associated depression of the cough reflex allows aspiration of gastric contents into the respiratory tract. Ventilation and oxygenation are further hindered, and the ensuing hypoxemia depresses the patient further.

To the next physician, the fractured hip is of less vital importance than are incipient pneumonia, central nervous system depression and ileus, And if there has been an injury to the head associated with the hip trauma, the proper assessment with regard to the head injury is compromised. To ascertain the cause of hypotension in such an individual, one must properly consider the effect of pain, morphine, blood loss at the fracture site, fluid loss by emesis, and hypoxia of the myocardium and vasomotor centers. No one would like this for an everyday problem, but it will remain a daily task as long as patients are regarded as static prototypes.

TRANSPORT FACILITIES

When a physician selects a mode of transfer, he must consider several things, not the least important of which consists of the facilities available in the vehicle. A patient who has needed continuous gastric suction at home can be expected to need the same treatment while on the way to the hospital. Oxygen therapy that is necessary in one locale can hardly be discontinued merely because its administration enroute is difficult or clumsy. A fracture that has been immobilized early for pain

Annual Meeting

of

Blue Shield Participating Physicians

will be held in

South Room
Veterans Memorial Auditorium
at 5:00 P.M. Monday
April 23, 1956

relief and prevention of soft-tissue damage must continue immobilized while transport is effected, or feared complications will ensue. The respiratory cripple must be assisted by ventilation, regardless of the duration of the trip.

There are times when such problems demand the attention of a physician or nurse en route. Under such circumstances, the patient must not be moved until proper personnel are available, with adequate equipment for the patient's safety. The saving of time in the treatment of a part becomes a false economy if the body to which it is attached is allowed to deteriorate through inattention. *A young man had sustained severe facial lacerations and fractures from the sudden release of a truck tire rim. Hemorrhage was such that shock resulted, and the respiratory tract became obstructed. Facilities for definitive treatment were several miles distant. Before transfer, infusions were started and blood was given. An endotracheal catheter was inserted, and respirations were assisted with oxygen. An anesthesiologist accompanied the patient on the trip to the hospital to attend the airways, treat the hypoxemia, assist the ventilation and support the circulation by blood transfusions.* One need not speculate on the value of the services that the anesthesiologist rendered. Certainly a physician's time and talents can be put to no better use.

COMMUNICATIONS

Probably the greatest hindrance to proper care of transferred patients is the deficiency of information that confronts the physician who is called upon to attend them upon their arrival. Certainly he has a right to know each patient's medical history, treatment that has already been given, and circumstances that have prompted referral; and in the patient's interest, this data should be available without delay. A host of questions logically arise, and they can be answered quickly if the referring physician has been so considerate as to properly inform those concerned.

1. Why has the patient been sent to this hospital?
2. Does the patient have a knowledge of his illness and the reason for his transfer?
3. What treatment, remote and recent, has been given the patient?
4. Has any morphine been given him since his accident?
5. How long has he been vomiting?
6. Why was the catheter removed before he left home?
7. What were the characteristics of his respiration up to the time that he left for the hospital?

Too often, these and other questions go unanswered until phone calls are made, letters are written, or answers make their appearance at a time later than is compatible with good patient care. Frequently there is little time in which to seek answers, and guesses must be made, treatment begins empirically, or unnecessary, expensive, time-consuming and hazardous diagnostic procedures are resorted to, all because of an unnecessary informational vacuum.

It is more than a matter of courtesy for the referring physician to forward all of the available data with the utmost promptness. It is more than a matter of ethics. The proper care of the patient is so dependent upon this information that the referring physician is as fully obligated to provide it as he would have been obligated to continue his attention if the patient had remained at home!

Several examples of the usefulness of referral reports can be given. A proper neurologic examination involves, among other things, the quantitation and qualitation of a variety of the patient's physical and mental activities and responses, many of which can be drastically altered by the administration of an opiate. If the examiner is ignorant of the patient's having been given an injection of morphine just before boarding the ambulance, he may gain a far different impression of the problem at hand from that which he would get if he had known of the injection.

The orthopedist is certainly better able to reduce and immobilize a fracture properly if he has complete information concerning the initial injury, early and succeeding roentgenograms, and associated soft-tissue injury. If there is a large hematoma present at the site of a long-bone fracture and the patient is normal as regards blood pressure and pulse, the duration of the hematoma has significance. If the hematoma had not made its appearance at the time of the previous examination by the referring physician, he is justified in thinking that the patient's circulatory state will not remain normal, and he should prepare proper blood for use if needed. A knowledge of previous observations will help him in establishing the amount and direction of change in the pathologic process that he is treating.

Lest one assume that the principles and concepts that have been discussed apply only to the critically ill patient who has been transferred hundreds of miles to a large medical center, let it be said that the same attitudes and hazards are of equal importance when a patient has been sent no farther than from a surgical floor to an operating theater. Here also it is vital to the patient's welfare for the anesthetist and the surgeon to be aware of the patient's state and of the care that has been given him recently. Observations of the effect of preoperative procedures and medications should be written into the patient's record at the time that they are made. Furthermore, the anesthetist should record his observations of the patient accurately and completely dur-

ing surgery, including all medications given, fluids administered and problems that he anticipates will confront postoperative attendants. The estimated degree of central nervous system depression should be clearly stated so that the nurse working in the postoperative area will have a point of reference for the further care that she administers.

Receiving a comatose patient who is known still to have been anesthetized from two to four minutes previously is one thing; to observe nonresponsiveness in a patient who is known to have been awake at the end of the operation is quite another! The latter situation requires treatment and judgment not prompted in the first instance.

The anesthetist should remember that his record of anesthesia and the surgical report are actually and effectively the progress notes and the nurse's notes from the time the patient leaves his room until he returns to it. One should return a patient to his room only when he has decided that the time is optimal, facilities are adequate for transfer, proper personnel are available for transfer, and communications are complete and appropriate. The hospital stretcher renders no more immunity to disaster than does the ambulance.

It should further be emphasized that the principles of safety and communciation apply quite as fully when the patient is returned to the care of the physician who originally referred him. A profitable movement of a patient from one locale and physician to another can quickly become an unsatisfactory experience for all concerned when continuity of therapy and ideas is lost. The obligations mentioned are incumbent no less upon the consultant than upon the referrer.

SUMMARY

The ultimate advantage occurring from the transfer of a patient depends upon how efficient his initial care, the attention given him en route, and informative communications have been. Constant awareness, anticipation and appraisal of change in pathologic and physiologic processes are necessary, if a physician is to do for a patient what the patient cannot do for himself. This deficiency on the part of the patient is, after all, the only excuse for the existence of the physician.

State University of Iowa College of Medicine

Clinical Pathologic Conference

January 18, 1956

SUMMARY OF CLINICAL FINDINGS

A 73-YEAR-OLD white man was admitted to the State University of Iowa Hospitals with the complaint of substernal pain of one week's duration. With the onset of pain there had also been nausea and vomiting for two days. On the day of his admission, the pain had extended into his left shoulder and arm.

The intern who saw the patient reported finding him "alert and jocular." His pulse was 80 per minute, and his skin was warm. He did, however, complain of substernal pain. The intern asked the nurse to administer 50 mg. of Demerol intramuscularly, and the injection was given immediately. For the next 30 to 60 seconds, the patient laughed and reminisced about "shots" that had been given him on previous occasions, and then said, "I'm passing out." He took two gasping breaths and rolled up his eyes. Respiration and peripheral pulses were subsequently imperceptible, his face and neck became purple, and five minutes of artificial respiration failed to revive him. He was pronounced dead one hour and five minutes after admission to the hospital.

The patient had been seen at University Hospitals in 1945 because of arthritis. On a return visit in 1948, an EKG showed a postero-lateral myocardial infarction of questionable age. And in 1951 he was seen here for urinary bladder calculi and benign prostatic hypertrophy. His blood pressure was normal on all of those occasions.

CLINICAL DISCUSSION

Dr. James W. Culbertson, Medicine: I wish to discuss today's case as a diagnostic unknown. I hope we can experience some of the perplexity that must have been felt by the intern who witnessed the death of this patient no more than 15 minutes after meeting him for the first time. Such an episode is an unpleasant and frustrating experience for any physician, no matter how seasoned he may be in clinical practice. It also raises a number of important questions regarding emergency medical management, ones for which we have no clear and satisfactory answers at the present time.

Let me cite some examples. (1) What is the true value of intracardiac epinephrine injections? (2) What can we say about the actual usefulness of other heroic drugs in situations such as this? (3)

How long should one continue artificial respiration? (4) Should the anesthesiologist be called away from his other duties to offer expert opinion or to help with technical procedures? (5) Should an electrical external cardiac pacemaker be used in such instances? (6) Should the chest be opened and the heart massaged? If the chest were opened and the heart made accessible, it would be possible to apply an electrical defibrillator if indicated. And finally, (7) in clinical circumstances such as the ones in this case, what are the criteria for death and when is the patient to be declared dead?

In any particular circumstance of course, answers for these questions would be easier for us to find if we could be sure of the mechanism that has been responsible for physiologic collapse. But in cases of imminent death there is no time for gathering the pertinent facts and determining that mechanism. The case before us is an excellent illustration, I think, of a problem that faces physicians perennially, not only in the hospital but elsewhere.

On admission, this patient's chief complaint was of retrosternal pain. Such a symptom must be considered an indication of myocardial ischemia until it has been proved otherwise, although all of you know that there are many causes of pain in the chest and several causes of retrosternal pain other than myocardial ischemia. In the absence of evidence of *status anginosus,* the one-week duration of pain in the retrosternal region suggests coronary artery occlusion, rather than spasm of the artery. We haven't enough information to know whether the patient had been in *status anginosus* prior to admission, but the sketchy history leads us to doubt it. The protocol fails to tell us the severity of the retrosternal pain during the week prior to the patient's admission, and likewise, it contains nothing about the analgesic, vasodilator or anticoagulant drugs which may possibly have been used.

The history of nausea and vomiting during the first two days after the onset of pain is consistent with a working diagnosis of myocardial infarction. The mechanism of such symptoms and signs consists of an initial injury to the myocardium, either of the right ventricle or the left one or both, due to the occlusion of a coronary vessel. The resultant impairment to the function of the ventricular musculature leads to a diminished stroke volume and minute volume of cardiac output. In consequence, there is a fall in blood pressure. The nausea in such cases is associated with a fall in the arterial pressure. If the patient vomits, his blood pressure tends to rise, and he is likely to feel better after vomiting because of a widespread, intense sympathetic nervous discharge. If this mechanism actually was operative in this patient when he had nausea and was vomiting his hands and feet should have been cold and moist. This is not an uncommon phenomenon in patients with acute myocardial infarction. Generalized peripheral arteriolar constriction, especially apparent in the skin, compensates for the fall or the threatened fall in the arterial pressure.

We are told that on the morning of the patient's final admission to this hospital there was an extension of his retrosternal pain to his left shoulder and left arm. In retrospect, I think that this probably was an ominous symptom suggesting the propagation of a thrombus from the previous site of coronary occlusion or the development of coronary occlusion at a second site. It is interesting that 45 minutes after the patient was admitted to the hospital he appeared to be in satisfactory condition.

One naturally wonders whether the injection of Demerol had anything to do with his sudden death. My own view is that it probably had nothing whatever to do with his collapse—that it was coincidental, and that death would have occurred at approximately the same time if the injection had not been given. I say this even though I realize that it is posssible this dose of 50 mg. of Demerol may have been given into the vein, rather than into the muscle of a 73-year-old man. Old people don't tolerate morphine as well as younger people do, but the complications of the use of Demerol do not seem to have any special reference to age. It is true that in an occasional patient Demerol can cause syncope, and it is not very uncommon for it to cause dizziness and sometimes weakness. But these unpleasant side effects usually occur in ambulatory patients, and they can be expected to respond promptly when the patients lie down. It is possible, of course, since Demerol has a generalized vasodilating effect, that if the patient was suffering from a thrombotic complication, the dilatation of vessels in response to the drug might possibly have had something to do with the dislodgement of a thrombus, but I certainly shouldn't want to insist upon such a hypothesis.

One possibility is that with vasodilatation there may be a transient fall in blood pressure. Such a reduction in the already impaired flow of blood through the coronary vessels, together with the additional degree of ischemia, might serve further to irritate an already sensitive myocardium and possibly precipitate a ventricular arrhythmia. But, again, I think this is reaching rather far for an explanation of this man's sudden death.

Although we can't be sure, the description of the patient's final reactions suggests that his death had a cardiac rather than a respiratory or a cerebral cause. The possibility of death from cerebral causes is almost as great as from cardiac ones. I think, however, that a primary respiratory or pulmonary vascular abnormality is more unlikely. The development of the purple color in the patient's face and neck may be significant, or it may

not be. If it is significant, it suggests the possibility of obstruction to the filling of the right ventricle from the right atrium and the venae cavae. This could indicate acute cardiac tamponade, and it raises the question of the possibility of rupture of the myocardium at the site of infarction, with massive hemorrhage into the pericardial sac. Such a complication of myocardial infarction would explain all of the observations recorded in the protocol, and I believe that there is no good reason against it.

Certain other types of rupture related to infarction and necrosis of tissue should be mentioned in passing. Occasionally there is rupture of the interventricular septum, which puts the two ventricles into communication and, therefore, imposes an extra load on each. It usually is fatal, although sometimes it is not. Rupture of a papillary muscle is less common, but it likewise may be fatal. We have no observations on auscultatory findings over this man's heart which might help us in excluding or supporting either of these possibilities.

I propose that the possibility of myocardial rupture with acute cardiac tamponade must be entertained seriously. I don't know how we can exclude it, for the collapse occurred within the proper time range from the onset of symptoms.

Of course there are other and equally plausible mechanisms of acute ventricular failure, and perhaps they actually are commoner ones. Ventricular fibrillation is a possibility, and it regularly is fatal unless terminated or interrupted fairly promptly. It sometimes is preceded by a ventricular tachycardia that is somewhat less serious and is easier to treat. But again we have no observations which would help us decide whether this patient had a ventricular arrhythmia.

Another mechanism of acute cardiac failure that is not uncommon in such instances is cardiac standstill, or ventricular asystole. All types of rhythm disturbances of the heart, including ventricular asystole, have been observed in myocardial infarction. Actually, the artificial respiration alone could not have been expected to help this patient in any of these situations of cardiac tamponade, ventricular fibrillation or cardiac standstill, except insofar as perhaps the artificial respiration might have some slight secondary effect in helping to restore the coronary circulation, and that, I think, would have been inconsequential. In cardiac asystole or in ventricular fibrillation, the most useful maneuvers are to restore the coronary circulation by intermittent manual compression of the ventricles and to apply defibrillating electric shocks if indicated.

The history of this patient's previous visits to this hospital for arthritis, which I suppose may have been hypertrophic, and for bladder calculi in association with benign prostatic hypertrophy simply attests the susceptibility of this man to degenerative disease. The note on his visit here seven years ago is far more eloquent and helpful in that it offers us satisfactory evidence of the presence of coronary sclerosis and a posterolateral myocardial infarction at least seven years prior to his final admission. We can guess that his terminal myocardial infarction, if that is what it was, had considerably greater extent and was more critically located than the first one. Under those circumstances, we can likewise guess that its position may have been anterior rather than posterior.

Having reviewed and interpreted the meager record to support a tentative diagnosis of death due to myocardial infarction, we are obliged to inquire about other possible causes of sudden death in this elderly man who had complained of pain behind his sternum for one week and of an extension of it on his final day to his left shoulder and arm. I repeat these symptoms because I think they are helpful in excluding some possibilities.

First of all, one wonders whether this may have been an instance of massive pulmonary embolism. Presumably this man had been lying in bed for a week with myocardial infarction and had been given no anticoagulants. It is possible that he had been in transient congestive heart failure. Had he developed phlebothrombosis in his deep calf veins, one which had progressed to his iliac vessels, with final separation of a portion of the thrombus to cause major pulmonary embolism? We cannot say, for we lack adequate clinical information. If this were true, it would have had to be a rather large thrombotic embolus which lodged at the bifurcation of the pulmonary artery and occluded at least one of its two main branches. Moreover, there are other thrombotic complications of coronary occlusion, such as an extension of the original thrombus to still another branch of the same vessel, leading to an extension of the infarction. Mural thrombi may form on the right ventricular surface of the interventricular septum and provide a local source of pulmonary emboli. Likewise, mural thrombi developing after myocardial infarction either in the left atrium or in the left ventricle, but more particularly on the wall of the left ventricle in association with necrotic tissue, may in turn break off and cause embolization of the systemic arteries in any part of the body. Of course a major cerebral embolus could have been the complication which led to this man's sudden death. The picture of his final reactions would not be inconsistent with such a possibility.

The complications which I have mentioned up to the moment must be considered seriously. Moving on, now, to the more unlikely ones, I should mention dissecting aneurysm of the aorta, with terminal rupture into the pericardial sac and acute cardiac tamponade. The character of the pain, as described in the protocol, is evidence against this

possibility. Also, the recorded absence of arterial hypertension on previous visits to the hospital is a point against dissecting aneurysm. The patient's age similarly tends to weigh against this lesion. Ordinarily, it occurs in younger individuals.

As for some quite uncommon possibilities, we might think for a moment of an aneurysm of one of the aortic sinuses of *Valsalva* (the sinuses at the root of the aorta just above the attachments of the aortic valve leaflets), ruptured into either the right or the left ventricle with resultant acute ventricular failure. Such aneurysms can be either congenital or mycotic. If congenital, one would not expect the patient to have lived to this advanced age, and we have no evidence of any other congenital abnormality. If mycotic, there should have been some evidence of sepsis, but we have none in the record. Again, we do not have the aid of auscultation of the heart. In such instances, a rather conspicuous murmur develops, and there is a sudden increase in the systemic arterial pulse pressure, with a sudden lowering of the diastolic pressure.

Another rare possibility would be a pedunculated tumor or a pedunculated mural thrombus of the left atrium with obstruction of the mitral orifice. We have no evidence that rheumatic fever had given this patient a predisposition to mural thrombi in the left atrium. We have no history of syncopal attacks in the upright patient relieved by recumbency, nor do we have the evidence of thrombotic or neoplastic emboli to the systemic arteries which might support a rare diagnosis of this sort.

It seems fruitless for us to attempt extending the list of uncommon or rare conditions, for we lack adequate information to support or refute such suggestions. Therefore, my clinical diagnosis at this time is arteriosclerotic heart disease with coronary atherosclerosis, chronic, severe; myocardial infarction, acute, extensive, recurrent, with acute ventricular decompensation, mechanism undetermined; and sudden death.

I believe the radiologist has a single x-ray film of the patient's chest taken during one of his previous visits to this hospital.

Dr. Gwilym S. Lodwick, Radiology: I'm afraid, Dr. Culbertson, that the chest film to which you have referred is going to help us only in a negative way. It was made three years prior to the patient's death and showed no evidence of abnormality in the heart or great vessels. On first glancing at it, one sees that the cardiac silhouette extends quite far to the left. On close inspection, however, he sees that the tip of the shadow is cast by a pad of pericardial fat, rather than by the heart itself. Thus, the heart was not actually enlarged at that time. The lung fields are shown to have been clear. In summary, then, the patient's chest appeared healthy at the time that this film was made.

Dr. Paul M. Seebohm, Internal Medicine: If that x-ray doesn't change your diagnosis, Dr. Culbertson, we shall ask for questions concerning the clinical discussion.

Dr. William B. Bean, Medicine: Do we know whether this man was accustomed to fainting? In curious contradistinction to patients with aortic stenosis, in whom fainting and so-called sudden death are both common, it has been demonstrated that myocardial infarction patients who have been in the habit of fainting have a somewhat higher risk of instant death after an infarct. The aortic stenosis patients who faint seem to do it with a different mechanism. If they die unexpectedly, they do so over a period of many, many minutes, rather than succumb in this instant, so-called "physiologic" death. Do we know from history whether this man had fainting spells?

Dr. Seebohm: When I reviewed the chart, it was not evident that fainting had been one of his earlier complaints, and on the final admission, there was no information obtained pertaining to that point.

Dr. Jack M. Layton, Pathology: At autopsy, the most striking feature involved the heart and its coverings. The pericardial sac was distended and had a definite bluish discoloration. When opened, it contained 400 cc. of blood and blood clot. A 2-cm. ragged tear in the anterior left ventricular wall near the apex extended completely through that wall. Some fairly fresh thrombotic material was stuck to the endocardium. The heart muscle was soft and dark red. An old area of infarction lay next to this fresh infarct, but I am unable to tell from perusal of the protocol whether it was supposed to have been lateral or posterior. The electrocardiogram indicated that it was posterior. The coronary arteries contained multiple atheromatous plaques. A fresh thrombus occluded the anterior descending branch of the left coronary artery, but an older thrombus with considerable organization was present in the main left coronary artery. The aortic valve was calcific. The heart was enlarged, weighing 550 Gm. Atherosclerosis was severe also in the aorta, where the plaques were ulcerated and many mural thrombi were attached firmly to the ulcer bases. Arteriosclerosis involved the kidneys; and the urinary bladder, although trabeculated and slightly dilated, did not have a diverticulum. The prostatic urethral bed was smooth and had healed satisfactorily following the prior surgical operation. Other findings were considered incidental.

Figure 1 is a transverse section of the anterior descending branch of the left coronary artery. The atherosclerosis was of advanced degree, and at autopsy the narrowed lumen was completely occluded with fresh thrombus, some of which washed out subsequently as we processed the tissues.

Figure 2 depicts myocardium with altered staining of muscle fibers in the central area, ex-

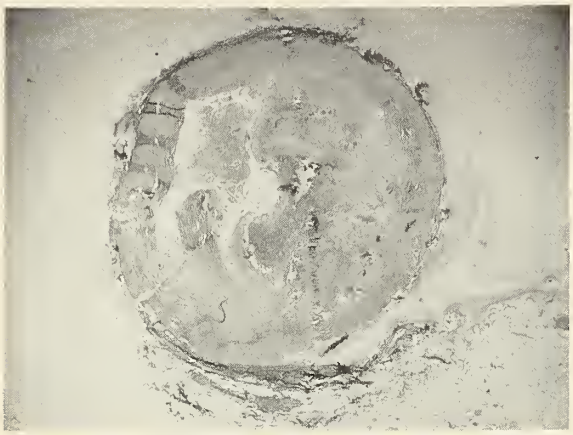


Figure 1. Coronary artery sclerosis and thrombosis.

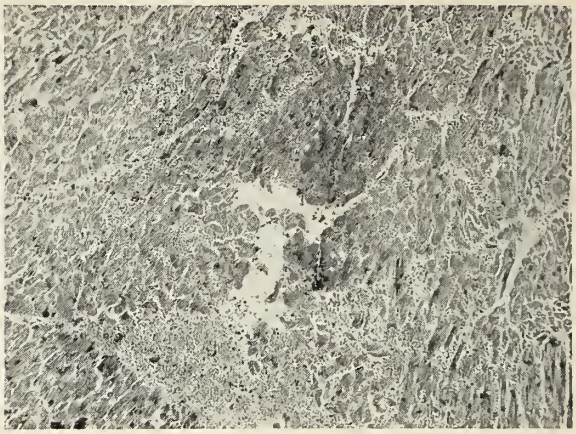


Figure 2. Acute myocardial infarct.

travasated erythrocytes among the muscle fibers all through the area, and very little evidence of reactive cellulitis. Neutrophils and fibrin were sparse in the area.

Figure 3 illustrates myocardium taken from the margin of the rupture and stained by the allochrome procedure. Thrombus is present on the endocardial surface at the right of the picture. Near the left margin, extravasated blood is separating and dissecting the muscle fibers. The deeper stained groups of fibers at the far left and just to the right of top center represent necrotic fibers, and the staining reaction would tend to indicate that the process was 9-24 hours old in those areas. Not all fibers are affected simultaneously or similarly, for here and with higher magnification a mixture of relatively normal, degenerating and necrotic fibers may be observed. General loss of stainable glycogen in muscle fibers was noted, a phenomenon that was probably due in part to ischemia and in part to autolysis. Other histochemical procedures were employed on the myocardium, and the results obtained were in substantial agreement with those of Yokoyama *et al.*[1] and Kent and Diseker[2] in their studies of histochemical changes in early myocardial infarction. These findings, together with the slight infiltration of neutrophils and the lack of other tissue reactions, tend to indicate that the infarct was no more than 24 hours old, and probably between 9 and 24 hours.

This man died from cardiac tamponade produced by hemopericardium, which in turn had resulted from rupture through a recently infarcted area of left ventricular wall. The infarct was associated with advanced coronary artery sclerosis and thrombosis.

Usually, if the patient lives, the necrotic muscle fibers are eventually replaced by firm scar tissue. But before scarring can occur, the left ventricular systolic pressure may force blood to burrow through the necrotic myocardial fibers and eventually to rupture the wall, either, as in this case, within a few hours or as late as three weeks after coronary occlusion.

The lower third of the anterior wall of the left ventricle just above the apex appears usually to be most susceptible of rupture, as was true in the case under discussion. Rupture occurs only in infarcts that involve the entire or full thickness of the ventricular wall.

Just to refresh your memory as regards the cross-sectional anatomy of the muscle bundles of the human cardiac ventricles, I present a set of diagrams (Figure 4). You will note that at the base of the heart the infarct would be full thickness only if *both* deep muscles were affected, but at the apex, because of the arrangement of the superficial muscles, the infarct would be full thickness if just a single muscle were affected. However, as Wartman[3] points out, rupture doesn't occur in all hearts with full-thickness infarcts. In the majority, in fact, it doesn't. Thus other factors such as blood pressure, physical exertion, and the degree of liquefaction and fibrosis of the muscle must be important.

The relationship between the injection of Demerol and the patient's almost immediate death is of course problematical. Unexpected deaths have been reported following injections, but usually some vasoconstrictor substance has been involved.

Student: What do you think is the likelihood that the infarction had been present for a week, and that the fresh findings at autopsy were an extension from the original, older infarction?

Dr. Layton: I think it is highly unlikely, and I base my opinion on the findings that I have already elaborated.

Dr. Culbertson: The alternative explanation for the pain under these circumstances would be premonitory angina, and of course that's not at all uncommon in myocardial infarction due to coronary occlusion. If this patient's infarct was no more than 36 hours old, it is probable that during the preceding few days he had been having spasm, or partial occlusion plus spasm of a coronary vessel. Premonitory angina is observed often enough clinically to be rather generally recognized, and you will find some literature on it. As

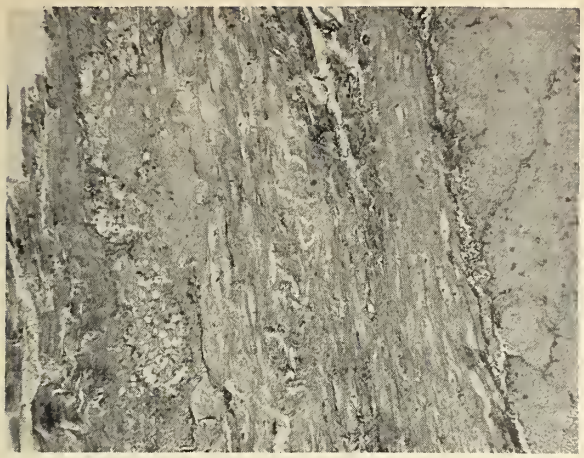


Figure 3. Myocardial infarct at the margin of cardiac rupture.

regards rupture of such an early infarct, I believe that the time range for rupture of the ventricular wall is usually given as 3-14 days—somewhat longer than Dr. Layton indicated. In commenting on a paper in which Dr. Herrman Blumgart reported at a meeting last May, that following infarction maximal collateral circulation is developed in the myocardium about the sixteenth day on the average, Dr. Howard Sprague gave a brief verbal report on a patient he had seen shortly before at the Massachusetts General Hospital. Rupture of the myocardium, Dr. Sprague said, had occurred in that patient less than 24 hours after the onset of the initial symptom of pain in the chest. In that connection, of course, one always wonders whether an anatomical change had begun before the symptoms appeared, for it is well known clinically that there may be "silent" myocardial infarctions without pain. Dr. Bean has pointed out in a paper on this subject[4] that the first symptoms may be neurologic and that patients actually may be admitted on neurological services. Dr. Bean also has looked into the matter of sudden death in another connection, and has some observations that I think you would be interested in hearing on how people die in cardiac tamponade.

Dr. Bean: I have little to add, for this has been a brilliant clinical discussion of the case under consideration. But there are a few points that I should like to make that will simply round out what has been said. First, at autopsy most people who have died in the way this man did will reveal no lesion that explains their having succumbed on one particular day, rather than on the day after or the day before. I think pathologists will agree with me. In any event, many who die as this man did will be found to have nothing but a myocardial infarct. By looking at the tissue, you can't say why they died on Tuesday instead of on Wednesday or Friday or some other time.

Another point that has been touched upon is the interval between the onset of symptoms and the rupture. In the series of 300 cases from the Mallory Institute in Boston that I analyzed, there was one in which symptoms were first recorded 14 hours prior to rupture. As for whether or not the patients have infarcts before they have symptoms, we have no way of saying, but at least within a half day following the first symptom a person may die from a ruptured myocardium. As a general rule, people who have cerebral vascular lesions, strokes, thromboses, hemorrhages and emboli take much longer than this from first symptoms to death. Dr. Aring reviewed a large group of persons who died from cerebral vascular lesions of one kind or another and found no instance of a patient's dying within half an hour of the initial sign or symptom. On the other hand, coroner's statistics, as Dr. Callahan may tell us, include people who have been picked up dead and who may have died abruptly from such things.

In the series of 300 cases that I analyzed, the intervals between rupture and death were of four sorts. There were patients who died instantly, as this man did, looking well one moment and being dead the next. There was no breathing, no pulse, no blood pressure and no consciousness. The only observation to be made was some residual warmth. The possibility that opening the chest

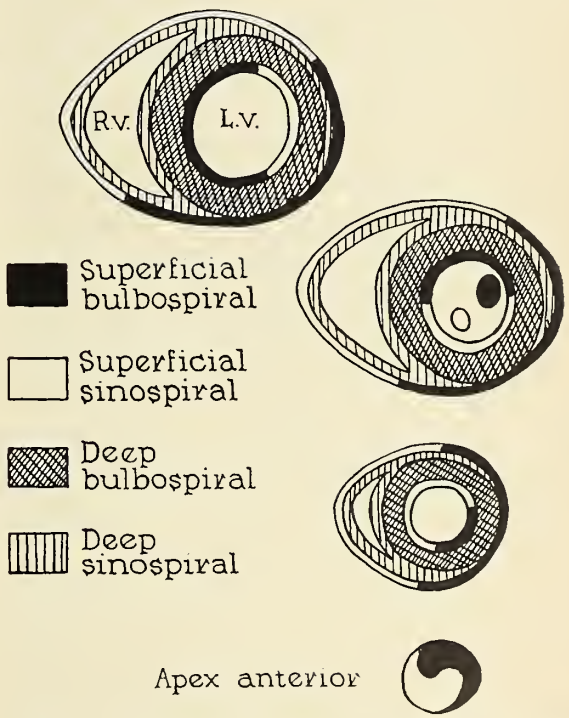


Figure 4. Cross-sectional anatomy of the muscle bundles of the human cardiac ventricles. (Reprinted from Wartman, W. B., and Souders, J. C.: Localization of myocardial infarcts with respect to muscle bundles of heart. Arch. Path., 50:329-346, (Sept.) 1950, by courtesy of the authors of the article and the editors of Archives of Pathology.)

and massaging might resuscitate them gives rise to the horrible notion that one might have the misfortune that one surgeon has reported—of having the heart rupture in his hands as he massaged it. Because we don't want to traumatize the hearts of either patients or surgeons in that fashion, I ask that you remember that possibility when you see cardiac arrest in a patient known to possess a badly diseased heart. The problem, of course, is entirely different in deaths on the operating table, where the patient's heart is presumably in much better condition.

The second group of patients with rupture of the heart die over a period of five minutes or more. During this time they have signs of acute inflow stasis, a very sharp engorgement of the neck veins, cyanosis and respiratory difficulty, with a rather slower fading away of consciousness than this man had, dimming of vision and gun-barrel vision—the kind of symptoms a person has before fainting. When a paient is in that condition, we don't usually observe him carefully and critically, and thus we don't know whether the neck veins have become distended or whether the skin has become cyanotic. If one makes a habit of watching as well as attending, he may be able to observe those things.

The third group of rupture patients, rather than having a "blowout," may have a "very slow leak," such as we occasionally have in an automobile tire. In the heart of one of these patients there is no more than a small hole, and they have taken anywhere from 3 to 6 hours to develop tamponade sufficient to kill them.

There are at least two cases on record of people with very small leaks who lived for eight days, and there has been one patient who lived for 17 days. In both instances, endothelium was forming in a false cavity in the pericardium, with a sort of ebb and flow of blood whooshing in and out of a small rupture. In any event, the possibility of death sometimes after rupture is not completely remote. One infers as much from the compatability between the histo-pathologic findings of the age of the infarct, on the one hand, and the timing of first pain and then signs of rupture (acute cyanosis, cardiac tamponade, etc.), on the other. When the patient died eight days afterward, autopsy revealed that endothelium had been forming in the false cavity within the pericardial sac.

This patient illustrates the kind of calamity that may occur after myocardial infarction. Rupture has been shown to be commoner in people who have been given anticoagulants, but not very much more so. The man whom we have been discussing today had not been given anticoagulants.

I emphasize that the time when rupture is likely to occur is any time between 24 hours and two weeks following the onset of symptoms.

Dr. Culbertson: I have just learned that this man was Dr. George Callahan's patient. Dr. Callahan is here and kindly has given me some additional information. First of all, in answer to Dr. Bean's question, Dr. Callahan says that this man had never had any fainting spells that he knows of. Furthermore he says he is very dubious about the history of one week's symptoms prior to the patient's coming to the hospital. This discrepancy between the record and the physician's recollections is illustrative, of course, of the difficulty of history taking and the traps into which we may fall. He doesn't know that the man had had any symptoms at all during the week preceding his death. Rather, so far as he is aware, the pain started at two o'clock on the morning of the day on which the patient was admitted to this hospital. This revised information corroborates Dr. Layton's pathologic observation quite satisfactorily.

Dr. Callahan had given the patient 100 mg. of Demerol at 9:30 that morning. He was admitted at about 11:00 a.m., and since he required no emergency recording, an electrocardiogram was not taken at that time. The patient had complained of leg cramps occasionally during the preceding year, but they had not been acute ones. Dr. Callahan also remarked that the man was a self-medicator, but that he didn't know what particular drugs he may have used.

Dr. George C. Albright, private practitioner: I think that Dr. Culbertson's solicitude for the poor intern confronted by this calamity is highly worthwhile. I am reminded of an incident that took place here in Iowa City some years ago. A senior medical student often saw cases with his father or for his father, and when, one day, a call came from seven or eight miles out in the country that the father couldn't answer at once, he sent the son. On reaching his destination, the boy found that the patient was dead. In distress, he phoned his father. As he tells it, "I could hear receivers coming off their hooks on that party line all the way from where I was to Iowa City." When the father finally answered, the boy said, "Pa, Joe is dead! What shall I do?" The father said, "Come home."

Dr. Seebohm: There is one question I should like to ask. I don't think it was brought out either by Dr. Culbertson or by Dr. Bean whether or not the rupture *per se* results from a sudden increase in intracardiac pressure which may follow an increase in peripheral resistance, increase in heart rate or some other mechanism. I think it is common for physicians to urge patients with myocardial infarction to remain at rest for fear of their blowing out that soft spot. Can such an accident really happen?

Dr. Culbertson: It is said in the books that rupture of the ventricular myocardium usually occurs during a period of arterial hypertension and

frequently in association with vigorous movement or effort. Whether such activity is a necessary condition for rupture, I don't know, but I doubt that it is.

Dr. Bean: The same thing is verified by observations made on people who have myocardial infarcts while in sanatoria or custodial institutions for the mentally disturbed. We have figures which Dr. Paul White collected, showing that 58 per cent of people dying of myocardial infarcts have rupture. Those findings indicate that if infarction is not recognized and if treatment is not given, getting up and going about his usual activities seem to increase the patient's hazard of rupture.

There is a relationship between the danger of rupture and the speed with which the blood pressure gets back to hypertensive levels in patients who have already had hypertension. The sooner it gets up to high levels, the worse the risk is, although not more than two or three times worse than it is in the non-hypertensive patient.

SUMMARY OF NECROPSY FINDINGS

The most striking findings at autopsy involved the heart and its coverings. The pericardial cavity contained 400 cc. of blood, 100 cc. of which was clotted. A 2-cm. ragged defect was noticed immediately in the left ventricular wall near the apex just to the left of the anterior portion of the interventricular septum. This defect extended completely through the ventricular wall. Extravasated blood was present in the margins of the rent, and adjacent muscle was soft, pale and friable. Alongside this area of infarction and rupture was a pale, thin, scarred region which represented an area of previous infarction which had healed by replacement fibrosis. The coronary arteries contained multiple atheromatous plaques. A recent thrombus was present in the anterior descending branch of the left coronary artery, and a thrombus which appeared older was present in the main left coronary artery. Calcification and fibrosis were present in the aortic valve. The heart was enlarged, weighing 550 Gm.

Severe atherosclerosis was present in the aorta, particularly in the abdominal portion just above the bifurcation. Ulceration had occurred over many of the plaques, and thrombi were firmly attached to the ulcer bases.

Mild degrees of congestion and edema occurred in the lungs, liver and spleen.

Arteriolonephrosclerosis with cyst formation was observed in the kidneys. The urinary bladder was trabeculated, without diverticulum formation. The prostatic bed was smooth and well healed, with urethra widely patent even though two small nodules of hyperplastic tissue were present in the wall.

Other findings included obesity, emphysema and old fibrous adhesions in the apices of the pleural cavities.

NECROPSY DIAGNOSES

Cardiac tamponade due to hemopericardium following rupture of a recently infarcted portion of myocardium of left ventricle.

Myocardial infarct, old, left ventricle.

Thrombosis, recent, anterior descending branch of left coronary artery.

Thrombosis, old, left coronary artery.

Atherosclerosis, generalized, especially severe in coronary arteries and aorta.

Arteriolonephrosclerosis.

Hyperplasia of prostate.

Trabeculation of urinary bladder.

Obesity.

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PREVENTION OF SPEECH DEFECTS IN CHILDREN

Guidance of mothers in the early management of speech behavior of their mentally normal children may help prevent their developing speech defects, according to an article by Dr. Benjamin Pasamanick, of Columbus, Frances K. Constantinou, R.N., of Baltimore, and Dr. Abraham M. Lilienfield, of Buffalo, in the February issue of JOURNAL OF DISEASES OF CHILDREN. Their study of the records of 290 such children, which revealed more twins and more later-born (third, fourth or fifth) children than were included in a similar number of normal children without speech defects, suggested to them that youngsters may persist in such peculiarities as a result of a species of neglect.

It might be that later-born children develop speech defects because of rivalries, disorganizations and frustrations in large-family living. The impatience of older family members with speech peculiarities in younger children, or the lack of attention from a busy mother with several children might also contribute to the production of speech defects, they said.

The prevention of some of these socially and psychologically disabling disorders may lie in the guidance of mothers in the early management of their children, they said. And they added that further study of these factors is necessary. The study was aided by a grant from the Foundation for Mentally Retarded and Handicapped Children of Baltimore.

Coming Meetings

In State

Apr. 6	**Visualization in Neurosurgical Diagnosis.** Midwest Neurosurgical Society, Des Moines Club, Des Moines
Apr. 11	**Neurology.** SUI College of Medicine, Iowa City
Apr. 11-13	**Iowa Public Health Assn., Iowa Heart Assn., and Iowa Trudeau Soc.** Savery Hotel, Des Moines
April 22-25	**Annual Meeting, Iowa State Medical Society.** Veterans Auditorium, Des Moines
May 16	**Allergy.** SUI College of Medicine, Iowa City

Out of State

Apr. 1-21	**Pain Syndromes; Diagnosis and Treatment by Regional Block.** University of Pennsylvania, Philadelphia
Apr. 2-4	**Surgery in Acute Trauma.** Valley Forge Army Hosp., Phoenixville, Penna.
Apr. 2-6	**Clinical Neurology.** Mt. Sinai Hospital, NYC
Apr. 2-6	**Clinical Use of Radioactive Iodine.** Cook County Grad. Sch. of Med., Chicago
Apr. 2-6	**Surgery in Acute Trauma.** Madigan Army Hosp., Tacoma; Tripler Army Hosp., Honolulu; Beaumont Army Hosp., Ft. Bliss, Texas; Brooke Army Hosp., Ft. Sam Houston, Texas; Walter Reed Army Med. Ctr., Washington, D. C.; Letterman Army Hosp., San Francisco; Fitzsimons Army Hosp., Denver
Apr. 2-6	**Physical and Occupational Therapy in Poliomyelitis.** Warm Springs, Ga.
Apr. 2-6	**Ophthalmic Plastic Surgery.** New York University, NYC
Apr. 2-7	**Spring Congress in Ophthalmology, Otology, Rhinology, Laryngoscopy, Fascio-maxillary Surgery, Bronchoscopy & Esophagoscopy.** Gill Memorial Hospital, Roanoke, Virginia
Apr. 2-13	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 2-13	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Apr. 2-13	**Pediatrics.** Cook County Graduate School of Medicine, Chicago
Apr. 2-27	**Clinical Surgery.** New York Polyclinic Medical School, NYC
Apr. 2-27	**Clinical & Operative (cadaver) Surgery.** New York Polyclinic Medical School, NYC
Apr. 7	**Trauma for General Physicians.** U. of Minnesota Ctr. for Continuation Study, Minneapolis
Apr. 7-10	**Annual Meeting, National Society for Prevention of Blindness and Pan American Ophthalmological Association.** New York City
Apr. 8-11	**Annual Meeting, Missouri State Medical Association.** Hotel Jefferson, St. Louis
Apr. 9 (10 hrs.)	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 9-11	**Clinical Reviews.** Mayo Clinic, Rochester, Minnesota
Apr. 9-11	**Endocrinology for General Physicians.** U. of Minnesota Ctr. for Continuation Study, Minneapolis
Apr. 9-13	**Ophthalmology and Otolaryngology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 9-13	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Apr. 9-20	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 9-20	**Pediatrics (Intensive Review Course).** Cook County Graduate School of Medicine, Chicago
Apr. 10-11	**Office Psychiatry for General Physicians.** U. of Nebraska College of Medicine, Omaha
Apr. 10-13	**Postgraduate Institute of Philadelphia County Medical Society.** Bellevue-Stratford Hotel, Philadelphia
Apr. 12-13	**Industrial Medicine.** Tulane University School of Medicine, New Orleans
Apr. 12-14	**Gynecology for Specialists.** U. of Minnesota Center for Continuation Study, Minneapolis
Apr. 15-17	**Obstetrics-Pediatrics.** New York University, NYC
Apr. 15-17	**Graduate Instructional Course, American College of Allergists.** Hotel New Yorker, NYC
Apr. 15-21	**Pan-American Medical Association,** Mexico City
Apr. 16-18	**Anesthesiology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 16-18	**Radiology for General Physicians.** U. of Minnesota Ctr. for Continuation Study, Minneapolis
Apr. 16-18	**Aero Medical Association.** Drake Hotel, Chicago
Apr. 16-20	**Electrocardiography.** Beth-Israel Hospital, Boston
Apr. 16-20	**Annual Meeting, American College of Physicians.** Los Angeles
Apr. 16-20	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 16-20	**Gastroenterology.** Mt. Sinai Hospital, NYC
Apr. 16-27	**Office & Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Apr. 16-27	**Urology.** Cook County Graduate School of Medicine, Chicago
Apr. 16-27	**Pediatric Refresher Course.** New York University, NYC
Apr. 16-27	**Radiological Health—Basic Course.** Taft Sanitary Engineering Center, Cincinnati
Apr. 16-27	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Apr. 16-May 4	**Cerebral Palsy.** Columbia-Presbyterian Medical Center, NYC
Apr. 16-May 11	**Basic Course in Radioisotopes.** Oak Ridge Inst. of Nuclear Studies, Oak Ridge, Tennessee
Apr. 18	**First Annual Trauma Day.** U. of Nebraska College of Medicine, Omaha
Apr. 18-20	**Twelfth Annual Meeting, American College of Allergists.** Hotel New Yorker, NYC
Apr. 20	**Pain From the Standpoint of Pathology, Physiology & Pharmacology.** Academy of Medicine of Cleveland, 2000 Adelbert Road, Cleveland 6
Apr. 20-21	**Urologic Problems in General Practice.** U. of Colo. Med. Ctr., Denver
Apr. 22-29	**Centennial Anniversary Program, Hawaii Medical Association.** Honolulu
Apr. 23-25	**Ophthalmology.** University of Michigan College of Medicine, Ann Arbor
Apr. 23-26	**Eighth Annual Meeting, International Academy of Proctology.** Drake Hotel, Chicago
Apr. 23-27	**Anesthesia.** U. of Buffalo School of Medicine, Buffalo
Apr. 23-29	**Gynecology for General Practitioners.** State University of New York, Syracuse
Apr. 25-27	**Fractures & Dislocations.** University of Tennessee, Memphis
Apr. 23-May 4	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 26-28	**Great Lakes Division, International College of Surgeons.** Madison
Apr. 27-31	**Biological Photographic Association, Inc.** Powers Hotel, Rochester, New York
Apr. 29-May 3	**Annual Meeting, California Medical Association.** Ambassador Hotel, Los Angeles
Apr. 30 (10 hrs.)	**Varicose Veins.** Cook County Grad. Sch. Med., Chicago
Apr. 30-May 4	**Poliomyelitis.** Orthopedic Hospital, Los Angeles
Apr. 30-May 4	**Vaginal Approach to Pelvic Surgery.** Cook Co. Grad. Sch. Med., Chicago
Apr. 30-May 4	**Culdoscopy.** New York University, NYC
Apr. 30-May 5	**Acute Neurologic Problems in General Practice.** New York University, NYC
Apr. 30-May 11	**Diagnostic X-ray.** Cook Co. Grad. Sch. Med., Chicago
Apr. 30-May 11	**Cystoscopy.** Cook Co. Grad. Sch. Med., Chicago
Apr. 30-May 11	**Internal Medicine.** Cook Co. Grad. Sch. Med., Chicago
Apr. 30-May 11	**Surgical Technic.** Cook Co. Grad. Sch. Med., Chicago
May 1-3	**Annual Meeting, State Medical Society of Wisconsin.** Milwaukee
May 1-18	**Pain Syndromes: Diagnosis & Treatment by Regional Block.** Grad. Sch. of Med., U. of Penna., Philadelphia

(Continued on page xl)



UNIVERSITY ISSUE

As is the custom, scientific articles for the April JOURNAL have been contributed by the faculty of the SUI College of Medicine, and the issue has been dedicated, this year, to the memory of two distinguished members of that group, John T. McClintock, M.D., and Kate Daum, Ph.D.

Our readers will find this year's presentation a varied one, representing the work of many departments of the College. It is fortuitous that the physicians of Iowa can thus discover for themselves that the members of their medical school faculty are engaged in continuing research and are making significant contributions to all phases of medical and surgical advancement.

The JOURNAL wishes to congratulate Dr. E. W. Scheldrup and his committee for the excellence of the papers that are presented for the consideration of our readers. All members of the Iowa State Medical Society should feel proud that their medical school continues to occupy a position in the forefront of medical education.

APRIL IS CANCER MONTH

It is significant that the Iowa Division of the American Cancer Society has received top recognition for the excellence of its programs during three of the five years that honors have been awarded.

Even more significant is evidence that the age-adjusted death rate from cancer in the state of Iowa is decreasing slightly, in contrast to the national trend.

The slogan for this year's fund-raising campaign will be "Fight Cancer With a Check-Up and a Check!"

Our readers, once again, will be interested in the break-down by which the Iowa Division of the Cancer Society has shown the distribution that has been made of the funds which they and their fellow citizens contributed during the past three years. Of each dollar, the largest share, 34.5 cents, has gone for research. Twenty-five of those 34.5 cents have been disbursed through the national headquarters of the American Cancer Society, and the remaining 9.5 cents have been used to sponsor research programs at Ames, Council Bluffs, Des Moines and Iowa City. Another three cents represents funds reallocated to state research in the present budget. Likewise, three cents were forwarded to the national office for fellowships and medical grants.

Twenty-four cents were used in the field of education. We are all familiar with CANCER NEWS, a magazine of which all of us are furnished copies. Our state publication NEW HORIZONS maintains an Iowa circulation of 275,000, the largest circulation of a cancer-control publication in the world. The bi-monthly magazine CA has also been distributed to all physicians in Iowa. Fifty three-year nursing scholarships are also included in this division of the funds, and in addition there are numerous educational aids such as slides, films and exhibits that it has paid for.

Sixteen cents of each dollar were expended for direct service to cancer patients. Another 16 cents were necessary for the defraying of administrative costs, of which 12 cents were spent through the national headquarters and 4 cents were spent for the maintenance of a state office at Mason City. The remaining 3½ cents were spent for campaign materials necessary in the raising of funds.

For the fifth time this year, the Iowa Division will concentrate a major part of its efforts upon engendering lay interest in cancer. It will do its share in sponsoring a nationwide contest among daily and weekly newspapers, in which prizes will be awarded to the publication, in each of the classifications, that is judged to have done the most outstanding job of presenting material dealing with the fight against cancer.

Since, if the present death rate continues, cancer will account for the deaths of 396,000 Iowans now living, all physicians in the state will undoubtedly be anxious to do all in their power to assist the April Cancer Crusade.

URETERAL INJURIES

The popular appeal of lay articles dealing with medical progress, and the impressive statistical reports of decreasing morbidity and mortality in most diseases has fostered public impatience with failures. Conditions previously accepted as near-mortal now are expected to produce no more than a few days' incapacity, with full recovery the rule. In surgical problems as well, the patient expects prompt rehabilitation and perfection in the functional result.

Such a lay viewpoint has had its origin, of course, in the critical attack that the profession itself has traditionally and unceasingly made upon its own inadequacies. Illustrative of such progress is the vast improvement made in the prevention of "surgical accidents." The use of blood, improved instruments, more adequate exposures, early ambulation, and improved anesthetic technics have greatly reduced the previously accepted figure of surgical morbidity and mortality.

Among the more unhappy complications that are still accepted as occasionally inevitable is the injury of ureters by severance, excision, ligation,


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respiratory infections

January and his associates[1] have written on the use of tetracycline (ACHROMYCIN) to treat 118 patients having various infections, most of them respiratory, including acute pharyngitis and tonsillitis, otitis media, sinusitis, acute and chronic bronchitis, asthmatic bronchitis, bronchiectasis, bronchial pneumonia, and lobar pneumonia. Response was judged good or satisfactory in more than 84% of the total cases.

Each month there are more and more reports like this in the literature, documenting the great worth and versatility of ACHROMYCIN. This antibiotic is unsurpassed in range of effectiveness. It provides rapid penetration, prompt control. Side effects, if any, are usually negligible.

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ACHROMYCIN SF

ACHROMYCIN with STRESS FORMULA VITAMINS. Attacks the infection—defends the patient—hastens normal recovery. For severe or prolonged illness. Stress formula as suggested by the National Research Council. Offered in Capsules of 250 mg. and in an Oral Suspension, 125 mg. per 5 cc. teaspoonful.



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[1]January, H. L. et al: Clinical experience with tetracycline. *Antibiotics Annual* 1954-55, p. 625.

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strangulation, or denudation during female pelvic surgery. The victims are miserable patients with pain, urinary leakage, or a debilitating urinary abscess. They become major problems in morale as well as in surgical repair. To ask such patients to understand that on occasion such complications inevitably occur, and that they were just unlucky, is too much to expect. At best, they can accept such news with no more than depressed resignation. Thus, the surgeon is placed in a defensive position, with a suspicious, critical, and occasionally openly antagonistic patient and her spouse.

The point of the above discussion can be made briefly. A simple prophylaxis consists of the preoperative placement of ureteral catheters. This procedure is quickly and easily done and is an almost certain means of preventing such injuries. The small cost in time and money is easily offset by the reassurance gained.

A DANGEROUS BILL

Ever hear of Senate Joint Resolution No. 97? "It's a bill that means trouble for the medical profession," says Dr. Louis H. Bauer, former president of the AMA and now secretary-general of the World Medical Association.

In the current issue of MEDICAL ECONOMICS, Dr. Bauer explains that S.J. Res. 97 seeks to raise this country's contribution to the International Labor Organization from $1,750,000 to $3,000,000 per year. That increase, along with proportionate increases in the funds received from other countries, would enable I.L.O. to spend $12,000,000 per year, instead of $7,000,000.

If the bill passes, he declares, the I.L.O., "the greatest threat in the world to free and independent doctors," would be able nearly to double its efforts to internationalize sickness insurance and to impose government medical care upon the organization's 70 member nations. It could accomplish that purpose either through international treaty, or through political pressure and propaganda.

Dr. Bauer urges physicians to alert their representatives in Congress to the danger.

ISMS EMPLOYS FIELD SECRETARY

Mr. Gerald L. Buckles, of Des Moines, joined the staff of the Iowa State Medical Society on March 1 to serve as field secretary and in this capacity he will coordinate various field activities for the ISMS.

During the past four and a half years, Mr. Buckles has been field representative of the Physician Relations Department of the Des Moines Blue Cross and Iowa Blue Shield Plans. He received his bachelor's degree from Drake University in 1950.

He will work with individual county medical societies and individual physicians. The position of Field Secretary was created in 1948, and Mr. Donald L. Taylor was hired to fill it. The post has been vacant since 1953, when Mr. Taylor was named executive secretary.

CORRECTION

Through an editorial error, point #9 in the summary of Dr. Howard R. Hunt's article "The Role of Radioiodine in Thyroid Disease," published in the March, 1956, issue of the JOURNAL, conveyed the opposite of the meaning that the author intended. It should have read as follows: "Euthyroid cardiac patients troubled by decompensation and angina will benefit from a reduction of circulatory load through induction of hypothyroidism by radioiodine in the majority of selected cases." The word *hyperthyroidism* had been substituted for *hypothyroidism.*

BOOKLET SUPPLY REPLENISHED

With the financial assistance of Johnson & Johnson, the surgical dressings manufacturer, the Iowa State Medical Society has arranged for the reprinting of its child-safety booklet entitled "What's the Answer?"

The pamphlet, originally prepared for distribution by the members of the Iowa Pharmaceutical Association during "Child Safety Week," February 12-19, contains valuable information for parents on emergency treatment of poisonings, head injuries, convulsions, burns, broken bones, cuts, bites and stings, and other accidental injuries.

Copies are available free at the ISMS headquarters office.

IOWA SOCIETY OF MEDICAL TECHNOLOGISTS

Veterans Memorial Auditorium, Des Moines

Monday, April 23

8:00 a.m.	Registration and Exhibits
9:00	Business Meeting (ISMT Members Only)
10:45	Invocation and Address of Welcome
11:05	"Laboratory Instruments"—Wm. Teppert, Drake University
11:45	Film: "Career Medical Technologist"
12:05 p.m.	Luncheon
1:30-4:00	Hematology Seminar—John Rebuck, M.D., Ph.D., Henry Ford Hospital, Detroit
6:30	Social Hour and Banquet, at the Des Moines Club. Address—Dr. Rebuck

Tuesday, April 24

7:30 a.m.	Dutch Breakfast, at Bishop's Cafeteria
9:00	"Serology"—Pearl Spanswick, serologist at State Hygenic Laboratory
10:00	Address—Opal Hepler, M.D., Ph.D., Associate Professor of Pathology, Northwestern University Medical School, Chicago
11:35	Film: "Quebec"

The Wonderful Full-Lived Man

ABRAHAM GELPERIN, M.D., DR. P.H.
DES MOINES

—First a shiver, and then a thrill,
Then something decidedly like a spill,
And the parson was sitting upon a rock,
At half past nine of the meet'n-house clock,—
Just the hour of the earthquake shock!
—What do you think the parson found
When he got up and stared around,
The poor old chaise in a heap or mound,
As if it had been to the mill and ground.
You see, of course, if you're not a dunce
How it went to pieces all at once,—
All at once, and nothing first,
Just as bubbles do when they burst.

This excerpt from the poem by Dr. Oliver Wendell Holmes entitled "The Deacon's Masterpiece" epitomizes the new goal of medical practice and research—not just that man shall end his days as dust, but rather, emulating the deacon's wonderful one-hoss shay, that he shall end his stay on earth by falling apart all over, all at once.

Within the lifetime of many of us, there have been unbelievable changes in the control which physicians and their collaborators have been able to exert over man's environment. It used to be that disability or death from summer diarrhea, diphtheria, typhoid fever, lobar pneumonia, whooping cough, bronchopneumonia, meningitis, scarlet fever and tuberculosis were ever-present threats. Diabetes, pernicious anemia and congenital heart disease were usually harbingers of doom.



Physicians continue to witness an almost exponential increase in the effectiveness of their diagnostic, prophylactic and therapeutic armamentaria. In conjunction with such vital modifications of our way of life as inspection and packaging of food, refrigeration, pasteurization, water purification and/or inspection, maintenance of rodent and insect control, and communal sewage disposal, there has been a wondrous change in the attitude that people take toward most illnesses. From dread, their response has changed to annoyance; from "Will I get well?" to "Why so long, Doc?" Provided only that an infant escapes cancer and accident, his parents can now look forward to 13 years of P.T.A., followed shortly by the joys of grandparentage.

For the first time in history, people are vitally concerned with the maintenance of health. They can be! The "old man's friend" is almost illegal. More and more people live long enough to come apart slowly at the seams. And when the end does come for any individual, it is the ultimate hope of people in general and public health workers in particular that it may come after he has enjoyed full use of his faculties throughout somewhat more than the traditional three score and ten years, and that it may come swiftly and with finality.

Prevention, in medical practice, is now beginning to embrace the non-contagious afflictions of man. Office routines, community programs of multiple screening and periodic complete physical examinations of the presumably healthy have as their primary objective the uncovering of incipient and hitherto unrecognized abnormalities—uncovering them, indeed, in their incubation period.

What does all this mean to the physician? It means that the doctor must acknowledge his responsibility for the maintenance of happiness as well as for the preservation of health! Through his art and science, he has brought incredible boons and benefits to society, but as he has found solutions for some problems, he has created wholly new ones. Voluntary health and welfare agencies, together with service clubs, are attempting to deal with these new difficulties, and the physician must reassume his historic role as a community leader, so that he may help to direct their efforts.

Doctors must, for example, take a major role in projects that are intended to meet the needs of the increasing numbers of elderly people in our communities. The establishment of institutions for the care of persons with long-term illnesses is no more than a part of the job that needs to be done. Medical practitioners must become oriented to the idea that people with no demonstrable disabilities need and are entitled to their help. Doctors, no less than other community leaders, should help to make certain that they not only keep healthy but stay happy.



The wonderful one-hoss shay never existed outside the imaginations of Dr. Holmes and his generations of delighted readers. But the wonderful full-lived man, resembling that fictional prototype in many significant ways, will shortly be more than a dream. Millions of him (and of her) will inhabit this country. Thus, community service must become an ever increasing share of each physician's responsibility.

The medical society speaks for physicians collectively, but only the individual doctor can translate its policies into action.

Dr. Gelperin is director of the Des Moines-Polk County Health Departments.

President's Page

As my term as president of the Iowa State Medical Society comes to an end, I should like to thank every member of the Society for his fine cooperation during the past year. Especially, I should like to thank the officers and the committee members for their tireless efforts in carrying out the work of the organization.

I should be remiss if I did not express my appreciation for the loyalty and the devotion that has been given to the Society by the members of the office staff. They have been tireless in performing their duties.

There have been many problems that have come before the Society during the past year. Most of them have been solved satisfactorily; a few have not. However, I am sure that all of the remaining ones will be handled to the best interests of the Society by your incoming president.

Although the work has at times been hard, it has been an honor and a privilege for me to be president of the Iowa State Medical Society.

I sincerely wish the best of everything to each of you and to our organization.

L. R. Offner, M.D.

President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

PREPARING FOR MOTHERHOOD, by *Samuel R. Meaker,* M.D. (Chicago, The Year Book Publishers, Inc., 1956, $2.00).

CURRENT THERAPY 1956, ed. by *Howard F. Conn,* M.D. (Philadelphia, W. B. Saunders Company, 1956. $11.00).

CHRISTOPHER'S TEXTBOOK OF SURGERY, ed. by *Loyal Davis,* M.D. (Philadelphia, W. B. Saunders Company, 1956. $15.50).

DISEASES OF THE CHEST, by *H. Corwin Hinshaw,* M.D., and *L. Henry Garland,* M.B. (Philadelphia, W. B. Saunders Company, 1956. $15.00).

A MODERN PILGRIM'S PROGRESS FOR DIABETICS, by *Garfield G. Duncan,* M.D. (Philadelphia, W. B. Saunders Company, 1956. $2.50).

BOOK REVIEWS

ATLAS OF PLASTER CAST TECHNIQUES, by *E. E. Bleck,* M.D. (Chicago, The Year Book Publishers, Inc., 1956. $8.00).

This profusely illustrated brochure presents the steps required in the application of plaster casts. The pictures not only are excellent but present the stages of each procedure in great detail.

Devotees of the unpadded split plaster cast will feel neglected, but that fact in no manner detracts from the value of the booklet.—*Everett M. George,* M.D.

THE INTERPRETATION OF THE UNIPOLAR ELECTROCARDIOGRAM, by *Gordon B. Myers,* M.D. (St. Louis, C. V. Mosby Co., 1956. $4.75).

How far the analytical science of electrocardiography has outdistanced the empirical "pattern" interpretation of a few years ago is illustrated by the author's suggestion that some 20 unipolar leads be taken routinely in each case as an initial study. The origin and form of the ventricular complex, both normal and abnormal, are analyzed in text and diagrams. There is a detailed discussion of disorders of rate and rhythm. A 40-page summary of QRS-T patterns in unipolar thoracic and limb leads lists the normal findings, those in various disease states, and those produced by drug and electrolyte disturbances.

This manual of some 160 pages originated as a supplement to the graduate course in electrocardiography given at Wayne University College of Medicine, Detroit, for many years. Its small size is deceptive, since the compactness of the text requires slow and careful reading.

Dr. Myers' long interest and numerous publications in subendocardial and subepicardial injury are adequately reflected in the work. The manual will be of great interest to the internist and cardiologist who seek to understand the why as well as the wherefore of electrocardiographic deflections.—*Herman J. Smith,* M.D.

THE RELIEF OF SYMPTOMS, by *Walter Modell,* M.D., F.A.C.P. (Philadelphia, W. B. Saunders Company, 1955. $8.00).

Professor Modell, a clinical pharmacologist from Cornell University, has written a new type of book, one slanted toward *symptoms,* not diseases. It is divided into three parts: Theory, Practice and Counsel. In the first division, chapters such as "The Nature of Relief" and "The Complaint" are included. In the division entitled "Practice," the chapter headings are such symptoms as "Pain," "Insomnia," "Fever" and "Itch." The final division consists of a chapter on "Cortisone and the Masking of Symptoms."

Its philosophico-chemical approach to medicine is the element of the book that fascinated the reviewer. The book is lucidly written and is "put up" well, as most Saunders books are, and though, as the author says, much of the material is "old hat," it is very much worth reading.

Too infrequently do we sit down and ask ourselves searching questions as to the rationale of the treatment of a patient's symptoms. Much more often we *fool ourselves.* When a patient gets better, we ascribe his improvement to the drug that we directed him to take, rather than to the natural course of the disease or to the reassurance that we gave him when we doled out the medicine.

It seems to me that we should ask ourselves questions about the easy assumptions we have been making, and that we should then sit down to read Dr. Modell's book. The style is comfortable, and reading the book makes one feel that the author possesses "uncommon common sense."—*Daniel A. Glomset,* M.D.

PATHOLOGIC PHYSIOLOGY: MECHANISMS OF DISEASE, Second Edition, ed. by *William A. Sodeman,* M.D. (Philadelphia, W. B. Saunders Company, 1956. $13.00).

In his preface, Dr. Sodeman states the rapid pace in the advancement of our knowledge of pathologic physiology has prompted him to issue a second edition. The corps of contributors, including Dr. William B. Bean, of the State University of Iowa, present new chapters on genetics, growth, neoplasia, and the nervous system, in addition to considerable revisions of their original treatments of other subjects.

In this type of physiology text, disease is pictured as disturbance of normal physiology. Such a book, however, does not replace standard works on physiology; rather, it serves to complement them. Physicians who give serious consideration to the mechanisms and consequences of disease will enjoy having this volume readily available in their libraries.—*M. E. Alberts,* M.D.

Iowa Academy of General Practice

ORGANIZATIONAL LOYALTY

Regardless of the statements some may make, members of organized medicine are indeed in a fortunate position. But in order for any organization to conduct its business successfully, it is essential that many of its members work countless hours and spend much of their time attending meetings, and it is likewise necessary that individual members make an effort to attend all general meetings, business and scientific, so that they may be sure of getting a first-hand knowledge of what is going on and why.

In a small Iowa city a short time ago, a large group was protesting to the city council about a proposed street project. When the membership of the group was checked against the list of registered voters, it was found that not one of them had voted at the last election. As a result, their point of view on the street project—regardless of its merits—was considerably discredited. Protesting about organizational policies without having attended the meetings of the group is similarly out of order.

This is an appeal to all of the doctors of Iowa to attend the Annual Meeting of the Iowa State Medical Society, at the Veterans Memorial Auditorium in Des Moines, April 22-25, 1956, and the Annual Meeting of the Iowa Medical Service (Blue Shield) on Monday, April 23, 1956, at 5:00 p.m., in the South Meeting Room of the Auditorium.

Let this plea be heard not only by general physicians but by all other doctors. Let's attend the meetings in Des Moines and make this year's sessions the best ever!

CORRESPONDENCE

Many of our members are mailing their correspondence to the AAGP's Kansas City office. This simply delays their replies, for their letters are referred to the IAPG for answering.

Any questions that members have regarding the Academy should be directed to Donald H. Kast, M.D., secretary, or to Mrs. Isabelle Wandling, executive secretary, Iowa Academy of General Practice, 911 Bankers Trust Building, Des Moines 9, Iowa.

Members and other interested physicians are invited to visit the office in Des Moines on any afternoon except Saturday.

GP LUNCHEON

A luncheon for all general practitioners attending the Annual Meeting of the Iowa State Medical Society will be held at the Hotel Savery on Tuesday, April 24, at 12:15 p.m. This luncheon is sponsored by the Iowa Chapter of the American Academy of General Practice. Chapter members and other GP's from throughout the state are encouraged to attend.

SUI POSTGRADUATE COURSES

The doctors in Iowa are indeed fortunate to be able to attend postgraduate courses within their own state. The State University of Iowa College of Medicine, through Dr. W. C. Keettel, director of postgraduate studies, presents many such seminars for all doctors, general physicians as well as specialists. The courses are arranged throughout the year and furnish an excellent review of many different branches of medical subject matter.

The Refresher Course for General Physicians held at Iowa City on February 15-18, 1956, was considered by the medical school officials to have been one of the most successful ever held there. This course was divided so that a day could be devoted to each phase of practice, and the total attendance was 170, of whom 114 were members of the Iowa Academy of General Practice. The medical amphitheatre was full at every session.

The SUI College of Medicine is *our* medical school, regardless of where our medical training was taken. We should support all of its work, remembering that the faculty will work with us in every way possible. Let us assist in all of the activities that are being carried on there!

WRITE AT ONCE

to the hotel of your choice, so as to be sure of having room reservations for

THE ANNUAL MEETING OF THE IOWA STATE MEDICAL SOCIETY

April 22-25, 1956
Des Moines

MENTAL ILLNESS

ELECTROTHERAPY AND THE GENERAL PRACTITIONER

More frequently than ever before, the general practitioner is finding it necessary to refer patients to a psychiatrist. But in doing so he doesn't by any means terminate his dealings with the patient and his family, or cease to contribute to the restoration of the patient's health. Rather, there are several vital tasks that remain for him to perform. It is he who must prepare the patient and the patient's relatives for the psychiatric examination, in many instances, and it is he to whom the patient and the relatives turn for an explanation of the methods used in psychiatric treatment. This paper will review the points which he should cover whenever he is called upon to explain electric treatments to patients and their relatives.

First, it is wise for him to use the term *electrotherapy* or *electric treatments,* rather than the misleading and somewhat frightening term *electric shock treatments.*

A patient who suffers from depression can be given electrotherapy on either an in-patient or an out-patient basis. He probably will receive from six to ten treatments, three of them per week. The average number given to such a patient is eight. Usually, he begins showing clinical improvement after the fourth or fifth treatment.

The improvement achieved by electrotherapy is marked by evidence that the patient is feeling less depressed and less agitated, and that his appetite is improving. He is less likely to awaken too early in the mornings, and he shows increased interest in the activities that are going on around him.

At about the same time, however, a temporary but disturbing effect of the electric treatments may become manifest. The patient develops a memory difficulty, and although it is usually mild, it occasionally is pronounced in the elderly. This is a transient syndrome traceable to the accumulated effects of the electric treatments. Following the last treatment, this syndrome completely clears, and the patient's memory is within normal range after about three weeks have elapsed. But if patients or relatives do not realize that this syndrome is an expected incident during the therapy, they may become apprehensive, feel that the patient is becoming worse and ask the doctor to discontinue the treatments. It is just as important for a patient to complete a course of electric treatments, when once he has begun them, as it is for a fracture patient to keep a cast on his broken leg for the prescribed period of time.

Relapse is most likely to occur within the first month following completion of the course of treatments. After electrotherapy, it is advisable for the patient to return to the psychiatrist for a routine examination in three weeks. His progress can then be assessed. The psychiatrist examines him for symptoms relative to his emotional illness and seeks to determine how rapidly his memory is clearing. Usually a patient may return to work from one to three weeks after the completion of his treatments. He may resume driving a car or handling farm machinery at that time, too.

OUT-PATIENT ELECTROTHERAPY

If the patient is to receive out-patient electrotherapy, one of his relatives must be able to accompany him, usually three mornings a week, and provide transportation. The patient is ready to leave the clinic within two hours or less. The treatment itself lasts only three-tenths of one second and is painless, but it is important for the patient to be fully recovered before he leaves the clinic.

The patient should have no breakfast or fluids on the morning of a treatment, but otherwise he may eat a regular diet.

After treatments, the patient should be cared for at home by a responsible person. This person, in addition to supervising the patient, must be prepared to look after the patient's children, prepare meals and act as the patient's deputy in other respects. Whether the patient can drive a car or handle machinery during this period is an individual matter. In general, if a memory disturbance is present, it is wise for him to forego such activities. It is inadvisable for him to make major decisions or become involved in any complicated business deals. All such activities can be resumed, of course, within a reasonable time after recovery.

A patient may express a fear of electric treatments, and do all he can to keep from taking them. A fear of the unknown is present in everyone, but the apprehension surrounding these treatments is usually more than that. Perhaps the patient has read a frightening article, or perhaps he has heard that the lady next door had an aunt who had electric treatments and didn't get well. Usually several things are responsible for the patient's over-concern. He may have a fear of losing consciousness, or a fear that he may not regain consciousness. In any event, the general practitioner can greatly allay the patient's anxiety by giving him strong and genuine reassurance.

At the Veterans Auditorium in Des Moines
During the ISMS Annual Meeting
April 22-25, 1956
Your Secretary and Your Patients Can Reach
You by Telephoning 8-6427

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

GRADE A MILK AND BRUCELLOSIS

Beginning July 4, 1956, all milk labeled as Grade "A" in Iowa must be produced, processed and distributed in accordance with the requirements of the 1953 edition of the Milk Ordinance and Code recommended by the United States Public Health Service (Chapter 110, Laws of the Fifty-Sixth Iowa General Assembly).

As regards brucellosis, herds certified as following Plan A, approved by the Agricultural Research Service, U. S. Department of Agriculture (formerly B.A.I.), for brucellosis control meet the requirements of this ordinance for Grade "A" milk for pasteurization.

Plan A (Agricultural Research Service) is as follows:

1. Blood test for all animals more than six months of age, except steers. (Official calfhood vaccinates need not be tested until 30 months of age.)
2. Immediate slaughter of reactors. Indemnity payments if federal and state funds are available.
3. Retest of infected herds at intervals of 30 to 60 days until the disease is eradicated. Annual retest of negative herds. (When a blood test reveals suspects but no reactors, it is permissible to retest only the suspects, provided all the suspects are retested. Suspects are retested at intervals of 30-60 days until they become negative or positive or are removed from the herd. If a suspect becomes a reactor, the entire herd must be retested as an infected herd.)
4. Official calfhood vaccination is optional with the owner.
5. All additions to herds shall be brucellosis free.

RING (A.B.R.) TESTS

Herds that are designated as "Certified Brucellosis Free" by the Iowa and U. S. Departments of Agriculture on the basis of three negative milk-ring tests at four to six month intervals, or are recertified on the basis of two semiannual negative ring tests, are considered to be in compliance with the ordinance for production of Grade "A" milk for pasteurization.

In the event that the milk-ring test on milk from a herd results in a suspicious reaction, and the blood tests on individual animals in that herd are negative, the blood test is accepted as the diagnostic test.

Although there are provisions in the state law for Plan "B," permitting quarantine and temporary retention of reactors, *milk from reactors (diseased animals) may not be sold in Iowa.* Thus, Plan "B" is not considered feasible under usual conditions. Many cities and towns in Iowa require that the dairy herds conform to Plan "A." Also, in some instances, milk that is being shipped to other states must originate from herds on Plan "A."

FEDERATION HONORS DR. BIERRING



Dr. W. L. Bierring

At its meeting February 11-14, 1956, in Chicago, the Federation of State Medical Boards of the United States, in conjunction with the Annual Congress on Medical Education and Licensure, adopted a resolution honoring Dr. Walter L. Bierring, until a year ago Iowa commissioner of health and now director of the Division of Chronic Diseases in the State Department of Health. Dr. Bierring has been secretary of the Federation continuously during the past 50 years.

The resolution is as follows:

Whereas: The Federation of State Medical Boards of the United States has had the benefit of the leadership of Walter L. Bierring through

long and continuous years of service as its Secretary and Treasurer, and

Whereas: The Federation has been able, through the leadership of Doctor Bierring to maintain close and satisfactory relations with the medical profession and medical education, and

Whereas: Doctor Bierring has had a life-long interest in improving the status of licensure in the United States, and

Whereas: It would be fitting for the Federation to show its love and affection for Doctor Bierring,

Therefore: Be it resolved that the Federation hereby establishes and hereafter designates the annual Federation Dinner address as the Walter L. Bierring Lecture.

POLIOMYELITIS VACCINE

The Public Health Service's interest in the safety of the Salk poliomyelitis vaccine continues. For this reason, the Polio Surveillance Unit requests that all states and territories check their records for any report of encephalitis, transverse myelitis or other neurologic illness developing in individuals within 30 days after vaccination. Reports from all responsible sources will be welcomed.

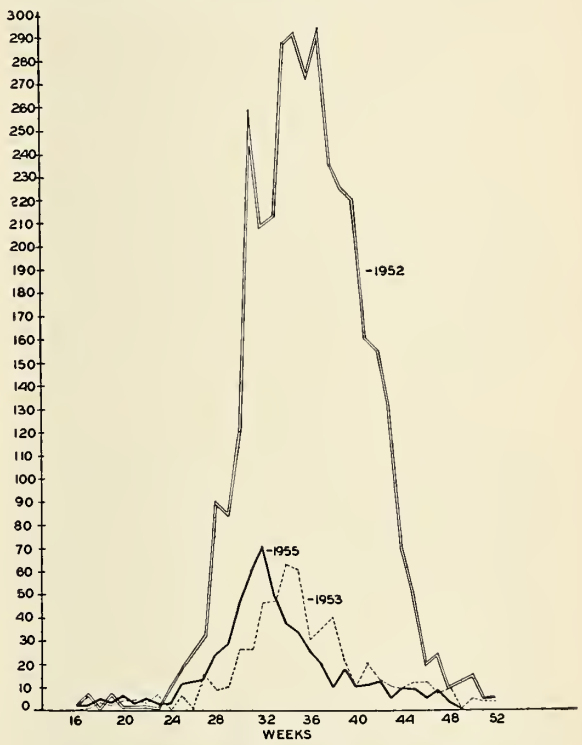
The reports should include the following information: (1) the name, age, sex and residence address of the patient; (2) the manufacturer, date and lot number of the vaccine; (3) the site of vaccination(s); (4) the date of onset of clinical illness; (5) a description of the illness and of the physical and laboratory findings; and (6) the name and address of the hospital and of the attending physician.

CURRENT SHORTAGE OF VACCINE

From September, 1955, to date, less poliomyelitis vaccine has been allocated to Iowa than was used in the state in the school program (April-September, 1955) for youngsters in grades 1 and 2. About 120,000 children were given two injections in that program. Under the new scheme, enough has come to Iowa to provide two injections for about 70,000 persons.

These shortages produce the inevitable accompanying pattern of unequal distribution that must be expected when any product in very short supply enters a market. For the period of short supply of vaccine, we are asking physicians to adhere to their agreement to limit its use to children in the eligible age groups (ages three through twelve) and pregnant women. Also, until much more vaccine is available, we are requesting that physicians promise third injections only to those children who were in the school program and whose third injection this spring is necessary as a means of keeping their poliomyelitis antibodies at protective levels.

To date, the State Department of Health has purchased no more than ten per cent of the vaccine allocated to Iowa. The plan under which we are working states that this Department may purchase vaccine as needed, up to twenty per cent of the State's allocation. Under these arrangements, we have sent vaccine to 62 Iowa counties for medical-hardship individuals. Eighteen counties are currently on the waiting list to receive their first orders of this vaccine.



POLIOMYELITIS BY WEEKS, 1952, 1953, 1955

For purposes of comparison, the accompanying graph shows the weekly incidence of poliomyelitis not just for 1955, but for the years 1952 and 1953 as well. The year 1952 was chosen because it was Iowa's number-one epidemic year, and 1953 was included for contrast, since it was a low-incidence year.

OBST. & GYNEC. BOARDS

Oral and clinical (Part II) examinations of the American Board of Obstetrics and Gynecology will be conducted at the Edgewater Beach Hotel, Chicago, by the entire Board from May 11 through May 20. Formal notice of the exact time of examination will be sent to each candidate.

Applications for certification for the 1957 Part I Examination are now being accepted. The deadline for receipt of applications is October 1, 1956. Current bulletins outlining requirements can be obtained from the secretary of the Board, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6.

COUNTY SOCIETIES

Black Hawk

At the February 21 meeting of the Black Hawk County Medical Society, Dr. Walter D. Abbott, of Des Moines, spoke on "Intracranial Vascular Accidents."

Dr. Charles Mayo discussed "Carcinoma of the Rectum" at the meeting held on March 20.

Davis

Dr. John R. Scheibe was elected president at the annual meeting of the Davis County Medical Society, on February 3. Dr. E. O. Gilfillan was chosen vice-president; Dr. W. D. Haufe, secretary; Dr. P. T. Meyers, delegate; and Dr. S. R. Jaskunas, alternate.

Des Moines

At the dinner meeting of the Des Moines County Medical Society on March 13, Dr. H. B. Elkins, associate professor of radiology at SUI, spoke on "Radioactive Isotopes," and Dr. Eugene F. VanEpps, head of the Radiology Department at SUI, spoke on "Dyspnea in Infants and Children."

Dubuque

On February 14, Dr. Louis E. January, professor of internal medicine at SUI, addressed the Dubuque County Medical Society on the prevention, recognition and treatment of rheumatic fever.

Hardin

Dr. Walter N. Hanson, obstetrician and gynecologist, and Dr. F. William Saul, radiologist, both affiliated with the Park Hospital Clinic at Mason City, discussed problems of infertility at the regular monthly meeting of the Hardin County Medical Society in Alden on February 14.

Lee

Guest speaker at the March 14 meeting of the Lee County Medical Society, in Donnellson, was Dr. Louis E. January, of the Department of Medicine at SUI. His topic was "Management of Rheumatic Heart Disease in Adults."

Mahaska

On February 14, 1956, Dr. George N. Bedell, assistant professor of medicine at SUI, addressed the Mahaska County Medical Society, in Oskaloosa, on "Surgery on the Heart and Great Blood Vessels."

Polk

On April 18, the Polk County Medical Society and the Polk County Bar Association will hold a joint meeting, at which there will be a panel discussion of compensation in traumatic cases.

Webster

Dr. Bernard Zimmerman, of the Department of Surgery at the University of Minnesota medical school, addressed the Webster County Medical Society March 28 on "Electrolyte and Fluid Balance in Surgery."

Woodbury

At the April 19 meeting of the Woodbury County Medical Society, Dr. T. T. Myers, of the Department of Peripheral Vein Surgery at the Mayo Clinic, will speak on "Medical Treatment of Varicose Veins and Associated Conditions."

At the meeting held on March 15, a 30-minute moving picture on clinical enzymology was shown, through the courtesy of the National Drug Company.

MORBIDITY REPORT FOR MONTH OF JANUARY, 1956

Disease	*Jan. 1956*	*Dec. 1955*	*Jan. 1955*	*Most cases reported from these counties:*
Diphtheria	5	14	3	Scott 3, Wapello 1, Washington 1
Scarlet Fever ...	76	80	70	Polk, Clinton, Dubuque, Pottawattamie, Dickinson
Typhoid Fever ..	3	3	0	Dubuque 2, Polk 1
Smallpox	0	0	0	
Measles	582	106	723	Cass, Union, Boone, Clay, Polk
Whooping Cough	57	35	102	Polk, Dubuque, Lee
Brucellosis	14	20	8	Black Hawk 4, Dubuque 2, others scattered 1 to a county
Chickenpox	944	710	509	Des Moines, Dubuque, Scott, Boone, Polk, Black Hawk
Meningococcus Meningitis	1	2	2	Woodbury
Mumps	103	99	638	Dubuque, Humboldt, Scott, Polk
Poliomyelitis ...	*11	12	9	Polk 1, Story 1, Cherokee 1, Scott 1, Clinton 1, Johnson 1, Woodbury 1; Delayed cases, 1 each to Hamilton, Howard, Black Hawk, Harrison
Infectious Hepatitis	48	35	170	Winneshiek, Clinton, Linn, Madison
Rabies in Animals	9	16	24	1 each in Carroll, Cedar, Kossuth, Palo Alto, Scott, Chickasaw, Johnson, Mitchell, Van Buren
Malaria	0	0	0	
Psittacosis	1	0	0	Hamilton
Q Fever	0	0	0	
Tuberculosis	28	24	53	For the State
Syphilis	35	87	133	For the State
Gonorrhea	68	52	76	For the State

* 4 of these are delayed cases

WOMAN'S AUXILIARY NEWS

Mrs. Edw. B. Hoeven, *Woman's Editor*
224 East AltaVista, Ottumwa

Mrs. Wilson Wolfe, *Asst. Woman's Editor*
N.E. Elm Street, Ottumwa

LINES FROM THE PRESIDENT

The warm and sunny days of April are here, and spring awakens the earth to new life. The warm breezes have melted the snow and by warming the earth have awakened the flowers that give us beauty and cheer. The sun revives our energies for activities of the summer days that lie ahead.

It has been said that you are never fully clothed until you wear a smile. Let a smile be your first adornment in the morning. It will bring happiness to your whole day.

The state chairman for the Annual Meeting, Dorothea Merillat, together with the Polk County Medical Auxiliary and Hazel Lammey, has been working since last spring to plan a swift-moving, information-packed Annual Meeting and Conference for us this month. There will be fun, sociability and interesting programs for *all* doctors' wives.

We hope that you will attend the Benefit Dance for the Nurses' Loan Fund on Monday night, April 23, in the Terrace Room of the Savery Hotel. There will be good music and a floor show. And for those who do not care to dance, there will be tables for bridge and canasta.

Make your reservations early for the various events which have been planned for your entertainment at the Annual Meeting. There will be a tea for the visiting doctors' wives at the governor's mansion on Monday afternoon, April 23.

Though we have no new Auxiliaries to welcome to our organization, I wish to extend a cordial welcome to our many new members-at-large. I hope that they will find their association with the Woman's Auxiliary a happy one, and along with my fellow officers, I extend them a special invitation to attend our Annual Meeting. By their attendance, especially at the Conference of Delegates, they can discover the advantages in forming county Auxiliaries of their own.

To doctors' wives who are not members, we also extend a hearty invitation. Though as yet they may not have recognized the benefits they can gain from joining with one another and with the rest of us, we hope that they will take this opportunity to find out what the Auxiliary has to offer. In our organization they can find especially understanding friends—ones who share their interests and aspirations and who, from first-hand knowledge, can sympathize with them about the many hours that the doctor's wife must spend alone and about the many times that family plans have to be postponed in the interest of patients and of Medicine.

There have been days, during the past 10 months, when the duties of my office have been a heavy weight upon my shoulders. I have tried to fulfill my responsibilities, and I have acceded to every request made of me, except on two occasions when illness prompted me to slow up a bit. My duties will come to an end in June, after I have served as your representative and have given our state report at the National Convention, and also have served as a member of the Courtesy Resolutions Committee there.

SPRING PROJECTS

I hope that each of you feels that she has done all she could this year to promote the fine projects of our Auxiliary program. In any case, you have this month in which to do additional work on them.

Whether or not you have already done so this year, would each of you take it as your personal responsibility this month to secure a new member for the Auxiliary?

Invite the physicians' wives from a neighboring unorganized county to attend your next Auxiliary meeting, and tell them of the advantages of forming an organized group.

During the month of April we are asked to help support the 80-Dimes Campaign. This project, sponsored jointly by the Woman's Auxiliary and the Woman's Activity Division of the NFME, will be an important part of Medical Education Week, April 22-28. Every citizen has a stake in the future of Medicine, for future physicians must be adequately trained to meet the health needs of an expanding population.

Eight dollars (80 dimes) is enough to erase a medical school's operating loss on just one of its medical students for just one week!

We are asking our "lay" friends to become supporting members of the National Fund for Medical Education, a federally chartered voluntary agency for the collection and distribution of money to the nation's 81 medical schools.

Enlisting the help of the general public in the 80-Dimes Campaign will accomplish two purposes: (1) it will captivate the interest and broaden the understanding of the American people in the role played by medical schools and by the AMA in our way of life; and (2) provided that each Auxiliary member gets one layman to con-

tribute, $569,640 can be collected for distribution to the medical schools.

The Auxiliary's participation in the 80-Dimes Campaign in no way replaces its AMEF fund-raising project, for the AMEF is the physicians' branch of the NFME. Our AMEF contributions must continue to grow each year. Each state will be given recognition at the National Convention in June for the funds it has collected during the year.

There is still time for you to send a TODAY'S HEALTH subscription to a friend and thus help to make your county 100 per cent. Do so now! Let's go ahead of last year's record—not lag behind.

Come to the Annual Meeting April 23 and 24 wearing your brightest smile. If we are to have bigger and better meetings, we need your support and your attendance. Let's make our registration this year a new All-Time High!

MRS. CHARLES H. FLYNN, *President*

COUNTY AUXILIARIES

Clay

On February 28, Dr. H. C. Merillat, a Des Moines psychiatrist, lectured at Spencer under the sponsorship of the Clay County Medical Society, the Auxiliary and the Future Nurses' Club. The Future Nurses' Club has held bake sales and coffees to finance a field trip to visit Des Moines hospitals and schools.

Dubuque

The Dubuque County Auxiliary held another of its highly successful Mardi Gras balls in January, 1956. A study is now being made of suitable investment for the surplus funds.

A total of $464.85 was reported for sales of items made by the handicapped.

Three subscriptions to TODAY'S HEALTH have been given to local institutions.

The following officers have been elected: Mrs. Charles Schueller, president; Mrs. Gerald Keohen, vice-president; Mrs. Ray Harris, secretary; and Mrs. Robert Barton, treasurer.

Grundy

On February 1, the Grundy County Auxiliary elected the following officers: Mrs. H. V. Kahler, of Reinbeck, president; Mrs. Henry L. Moe, Grundy Center, vice-president; and Mrs. W. O. McDowell, Grundy Center, secretary-treasurer.

The Grundy Center Nurses' Association and the Woman's Auxiliary to the Grundy County Medical Society entertained on February 8 at a tea and program for the members of the Future Nurses' Clubs and their mothers from Grundy Center, Reinbeck and Wellsburg.

Members of the Auxiliary gave a party for retarded children at the Stout School on February 13. They provided ice cream, cookies and valentines for all the children.

Mahaska

The Mahaska County Auxiliary met on February 14 for a luncheon meeting. Mrs. Robert Alberti was elected delegate to the Annual Meeting, and Mrs. Kenneth Lemon, alternate.

Ideas were presented and specific plans were made for the poster to be exhibited at the Annual Meeting. Mrs. Sydney Smith is county exhibit chairman.

Mrs. Howard Bos reported on the AMEF fund. Ten dollars was voted to it.

Mrs. Leroy Catterson, welfare chairman, reported on a local aid project.

Polk

The Woman's Auxiliary to the Polk County Medical Society sponsored a bridge and canasta party on February 27, at Hoyt-Sherman Place, for the benefit of Future Nurses' Clubs. Following a dessert luncheon, the Auxiliary president, Mrs. Ralph Hines, welcomed the members and their guests.

Wapello

The Wapello County Auxiliary met on March 6 at the home of Mrs. Edward Hoeven, in Ottumwa. Mrs. H. A. Spilman, state chairman for AMEF, explained the "80-Dimes Campaign," and urged participation by members. The group voted to give $50.00.

Mrs. Wilson Wolfe and Mrs. Edward Ebinger were elected delegates to the state meeting in April.

Five dollars was given to the AMEF in memory of Dr. F. L. Nelson.

The following are the chapter's officers for 1956, to be installed in May: Mrs. D. O. Bovenmyer, president; Mrs. Edward Ebinger, president-elect; Mrs. Greg Snyder, vice-president; Mrs. John Stewart, treasurer; Mrs. Richard Saskill, publicity chairman; and Mrs. Keith Miller, of Agency, secretary.

Whether They Are Auxiliary Members or Not,

ALL PHYSICIANS' WIVES ARE WELCOME

To Attend the Annual Meeting, April 23-24



NEWS AND VIEWS

One of the great prophetic teachers of our time often urged: "Turn the searchlight inward." His meaning seems clear. We should turn a bright light upon the hidden recesses within ourselves, honestly seeking the truth about ourselves, unpleasant though it may be or hard to face as it often is. For it is disillusioning and often painful for us to admit our own faults and shortcomings.

To Mahatma Gandhi, the first prerequisite in the constant battle between good and evil was to "know thyself," and the second was to do something about the truth which self-examination revealed.

We know from his life that Gandhi was a man of complete integrity—an integrity so absolute that he was incomprehensible to materialistic minds. He taught and believed that if the peoples of the world lost sight of spiritual values in their striving for material gain, then communism would be rampant.

Since the end of World War II, the evil of communism has been forced upon 2,600,000,000 people. So in one decade we have seen Mahatma Gandhi's prophecy being fulfilled.

Ignorance, stupidity, lack of training and retarded imaginations are responsible for most of the troubles of the world. The inability to visualize the results of certain actions, to suffer in spirit for the wrongs done to our fellow men, or to imagine other people's pain may bring the downfall of all of us.

In a language other than our own, this gentle prophet was saying, "We are our brothers' keeper."

* * * *

The World Medical Association, made up of the national medical associations of 50 countries, now extends an invitation to doctors' wives to become members.

* * * *

Presidents of county Auxiliaries are asked to send clippings and pictures showing local newspaper coverage of their groups' activities to the state historian, Mrs. A. G. Felter, in Van Meter. She needs cooperation in bringing the record up to date.

* * * *

A special TODAY'S HEALTH subscription rate of $2.00 per year now applies to registered nurses. Special order forms are available at the Chicago office.

H.R. 7225, a bill now under consideration in the U. S. Senate which would permit Social Security payments to permanently disabled workers at or beyond 50 years of age, would make physicians the most pressured "middlemen" in the history of government. The doctors would be called upon to decide who was and who was not "permanently disabled," and thus eligible for a lifetime pension. Furthermore, bureaucrats would be given miles of new red tape with which to draw more and more people into socialism. Labor groups favor this bill; medical groups are strongly against it; and the administration is "leaning with the wind."

* * * *

H.R. 2092 (Jenkins-Keogh) is a bill that would permit self-employed people to put as much as $5,000 per year into privately managed retirement funds, up to a total of $100,000, without paying tax upon the money until the time came when they wished to draw the money out again to use for living expenses.

Every doctor's wife and every self-employed individual should understand this proposal and should urge Congressmen to support it. Do you wish to manage your own life, or do you want the government's bureaucrats to do it for you? If doctors are given a chance to provide for their old-age security in such a fashion as is outlined in this bill, there will be no excuse for anyone's continuing to urge that they be compelled to undergo Social Security taxation.

Professional groups support this legislation, and as of now, the administration supports it too, though it has shown signs of being willing to substitute a proposal that would compel physicians' entrance into the Social Security system.

* * * *

GETHSEMANE

(Sonnette)

Another day when all my present grief
Will mean as little as a faded gown,
When ruthless pain has torn my spirit down
And bitterness invades like grimy thief,
My mind will understand the smaller load;
My fingers reach to clasp a finer crown,
As, strengthened, I can trudge a rougher road.

ELINOR CHAPLER

* * * *

DATES TO REMEMBER

April 4: Deadline for news to be published in the May issue of WOMAN'S AUXILIARY NEWS. Copies are mailed to editors of other Auxiliary publications from coast to coast, and in Hawaii and Alaska. You can help keep the issues current, interesting and lively. Tell us what you are doing. We are interested and inspired by your activities.

April 22-25: Annual Meeting, Iowa State Medical Society, Veterans Memorial Auditorium, Des Moines.

April 22-28: Medical Education Week. An intensive campaign will be conducted by the Woman's Division of the National Fund for Medical Education to raise funds from the general public for support of the nation's 81 medical schools. Kate Smith is to be chairman of this drive. Send your dimes to the state chairman, Mrs. H. A. Spilman, Ottumwa.

April 29-May 5: Mental Health Week.

June 11-15: National Auxiliary Convention, Conrad Hilton Hotel, Chicago. Activities for children are being planned. If you plan to take your youngsters, consult the chairmen of activities, Mrs. Leonard Houda and Mrs. Maurice M. Hoeltgen, of Chicago.

* * * *

To date, the following Iowa counties have made the Exclusive Club by securing more than 100 per cent of their quotas of subscriptions to TODAY'S HEALTH: Sioux, Lyon, Cass, Hamilton, Madison, Page and Dallas-Guthrie. How does your Auxiliary rate?

* * * *

National Theme: BE AN INFORMED MEMBER!

"Poetry is the spontaneous overflow of feelings; it takes its origin from emotion recollected in tranquility."—Wordsworth

REMINDERS

1. Send your annual report to Mrs. Hazel Lammey, if you haven't already done so.
2. Send lists of your new officers to the secretary and to the president.
3. Send names of your Annual Meeting delegates to Mrs. Robert P. Mason, 5818 Chamberlain Drive, Des Moines.
4. Send names of deceased members to Mrs. Flynn for inclusion in the memorial service.
5. Give your new chapter president a subscription to the BULLETIN ($1) and the National Auxiliary's HANDBOOK FOR OFFICERS (50c).
6. Give a memorial gift to the Nurses' Loan Fund. Send it to Mrs. B. F. Howar, 1428 Des Moines Street, Webster City.
7. Give a subscription to TODAY'S HEALTH.
8. Bring your suggestions and ideas to the Annual Meeting. They will be welcomed.

GIVE YOUR SUPPORT TO YOUR NEW OFFICERS!



Construction site of the New Medical Research Building at the State University of Iowa, with University General Hospital in background.

The Building Program at the SUI College of Medicine

Through the past winter, work on the State University of Iowa's new $1½-million Medical Research Center has moved ahead "on schedule." Early estimates placed completion of the building in the late fall of this year.

In mid-March, the reinforced concrete shell of the structure's underground area was 95 per cent complete, pouring for the first and second floors was finished, and forms were being set in place for pouring on the third-floor level. The latter phase was expected to be completed by the publication date of this issue of the JOURNAL.

The building is being erected in the shape of a "T" between the University's General Hospital and the Medical Laboratories Building. The crossbar of the "T" will form the four-story front (facing north) and will join the Medical Laboratories Building with the Hospital. The stem of the design will extend to the south and will consist of three stories above ground.

The new structure will combine the Hospital and the Laboratories Building into a single functional unit.

Facilities for research will be provided in the new building for the departments of biochemistry, dermatology, medicine, neurology, obstetrics and gynecology, ophthalmology, orthopedics, otolaryngology, pediatrics, preventive medicine, surgery and urology. It also will include hospital clinical biochemistry laboratories, clinical cytology and hospital bacteriology laboratories.

Each of the research areas in the new building will be arranged as close as possible to the hospital offices and laboratories of the departments involved.

The three-story wing which forms the stem of the "T" design will be occupied by the department of biochemistry.

In the northwest corner of the new structure's basement, an area will be specially designed to house a cobalt radiation unit, funds for which are being donated by the American Cancer Society's Iowa Division. The corner location will permit utilization of the earth as shields on two sides. Walls of the therapy room will be two feet thick.

When the new center has been completed, the crowded condition in the University's General Hospital can be relieved considerably. Much of the hospital space has been converted into research and service laboratories and other service areas since the Hospital was built more than a quarter-century ago. These units, though necessary, take up space which is badly needed for teaching, for offices and for out-patient clinics. By recovering some of these areas in the hospital, the administration can provide more space for bedside teaching, for small classrooms, and for enlargement of out-patient departments.

The new building also will provide better facilities for programs of research already underway and will permit the establishment of new research programs now being held up because of a shortage in space.

The moving of the Biochemistry Department will improve the teaching facilities of the Department and bring together its teaching, research and service functions. At present, Biochemistry is using "borrowed" space from another department in the Medical Laboratories Building. The Department lost its original space in the Chemistry Building fire at the University in 1953.

Dean Nelson says: "The building will include the latest modern advances in construction. . . . Of special significance is the fact that this unit is designed on the module plan with movable partitions between rooms and with completely flexible mechanical systems. This means that the building can be adapted to necessary changes 25, 50 or 100 years from now without becoming outmoded. It will be a relatively simple matter to transform an office into a laboratory, or a laboratory into an office or classroom. It is felt that planning the building so that it may be easily altered is truly planning for the future."

SUI MEDICAL REUNION

Plans already are under way for the June 7-9 Medical Reunion at the State University of Iowa.

Dr. C. E. Radcliffe, assistant professor of dermatology and syphilology at SUI and chairman of the Medical Reunion Committee, says the list of speakers is nearing completion and that "a program which will be both informative and entertaining" is taking shape.

At each year's celebration, the tenth, twenty-fifth and fiftieth anniversary classes are specially honored. In addition, the five-, ten-, fifteen- and twenty-year celebrants hold meetings of their own during the general activities. Also, the Emeritus Club plans a dinner.

But the event, known as the All Medical Alumni Reunion, is planned for graduates of all classes, Dr. Radcliffe says, and all alumni are heartily invited to attend.

The Reunion will get under way with a Medical Convocation on Thursday evening, June 7. The annual luncheon on the Medical Laboratories Building lawn will begin shortly after Commencement ceremonies on Friday, June 8. Scientific papers will be presented during Friday afternoon. A banquet will be held Friday evening. More scientific papers will be presented on Saturday morning. And there will be fun and renewals of friendships throughout the two-day affair.

Information concerning the event may be obtained by writing to Dr. Radcliffe at the University Medical Center in Iowa City or to the Alumni Office on the University campus.

THE DOCTOR'S BUSINESS



Your Office Sets the Mood

MILLARD K. MILLS
WATERLOO

Every doctor knows the part emotions play in a person's well being. However what many doctors overlook, particularly in their own offices, is the effect that physical surroundings can have upon the mood of the patient. The reception room, business office and consultation rooms are important in that to a very great extent they set the stage for the reaction of the patient.

But the room which the patient dreads most is the examining room! Too often the doctor's examining room is rather frightening, or at least disconcerting. The walls are dull; the furniture is stiff and sterile looking, the instruments and medications on the table do not add to the patient's peace of mind. In short, the room has no warmth or hope. Generally the patient spends between ten and twenty minutes in the room before the doctor comes in. He stares at the walls or studies the instruments and wonders what is wrong with himself. His waiting time becomes doubly long and his mood changes accordingly.

Fortunately however, if this is your picture it is possible and not too expensive for you to do something about your examining rooms. The latest examining tables and other equipment can be obtained in pastel shades. Or your equipment can be brush-painted or taken to the nearest automobile body shop and sprayed whatever color you wish. Your walls can be painted a soothing, cheerful color. There are a multitude of attractive pictures that are readily available, or if yours is a pediatric practice, there are cardboard fairy-tale cut-outs that are appropriate for your use. By hanging drapes beside the windows of your examining room, you can make the walls less austere.

It is an excellent idea to have a small magazine rack in each examining room. If the patient has to wait, magazines will be available to him.

RESPECT THE PATIENT'S PRIVACY

Here's another thing to remember. Patients want privacy in the examining room. Sitting there listening to you talk with another patient in the next room does not inspire his confidence. Be sure that your examining rooms are as nearly soundproof as possible. Also, if you are planning a new building, arrange to have examining-room doors open toward a wall, so that the patient on the examining table isn't exposed to view from the hall as you and your nurse go in and out.

As a partial substitute for soundproofing and as an aid in keeping your patients in a relaxed and happy frame of mind, you may wish to "pipe" soft music through your suite. A record player and an amplifier in the business office, with speakers in various ones of the other rooms, can be obtained for $150, plus installation. Remember to choose relaxing, cheerful music—the sort that you and your staff will continue to enjoy day after day.

It is disheartening to find that in many examining rooms the equipment isn't kept immaculate. Dust is allowed to accumulate; when things have been spilled, they haven't been wiped up carefully; the lavatories are stained and the faucets rusty. Many doctors fail to realize that these are the conditions which lose patients for them.

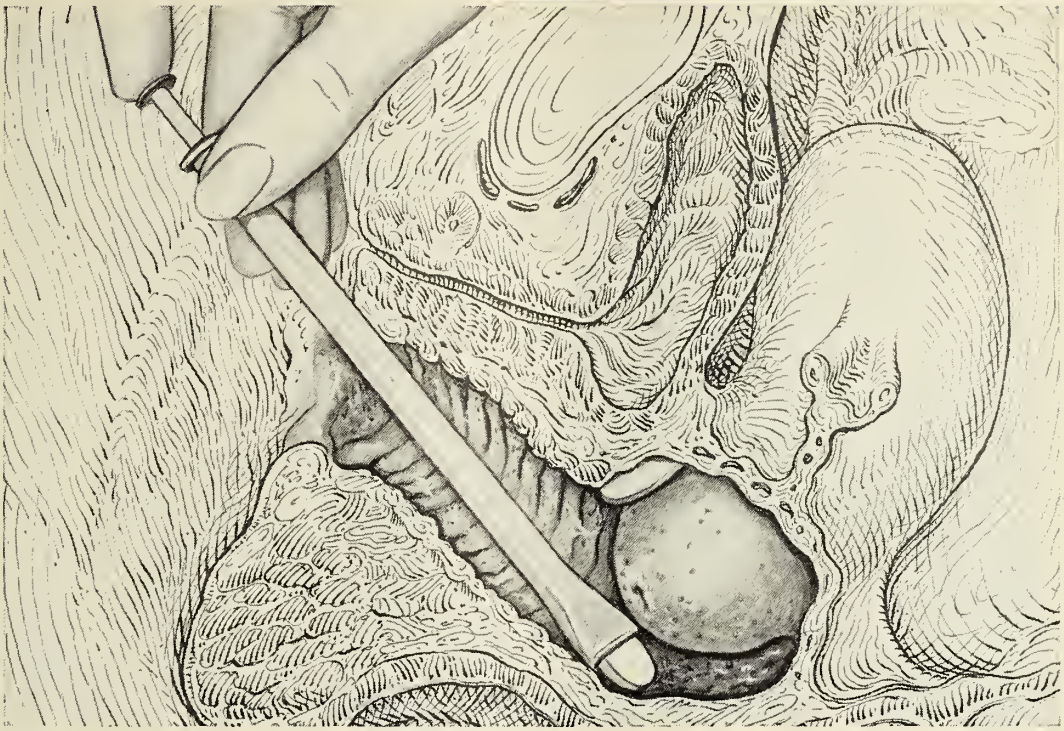
The laboratory in a medical office should likewise be as clean and modern as possible. Because of the likelihood of stains, counter tops should be made of stainless steel or formica, for their resistance to acid and discoloration. All equipment should be cleaned daily. The patient who enters the laboratory for blood work and finds conditions that indicate carelessness or dirtiness will be most unfavorably impressed.

Another room to watch is the x-ray room. Though the decoration here is not so important, the condition of the unit itself is vital. Many times, particularly when the doctor doesn't do a great deal of x-ray work, his assistant becomes careless about the machine. Dust is allowed to settle, sometimes even upon the focal points of the apparatus. Not only is this disturbing to the patient, but it may also interfere with the interpretation of films.

Let the medical section of your office be immaculate. Let it build hope and confidence in your patients, and good will for you!

Mr. Mills is general manager of Professional Management.

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The restorative treatment of vaginitis with Floraquin is now further improved by a new aid to tablet insertion. Faulty insertion is no longer a failure factor in therapy.

The new Floraquin applicator is designed for simplified insertion of Floraquin tablets by the patient. This plunger device, made of smooth unbreakable plastic, places the Floraquin tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate. The patient inserts two Floraquin tablets with the applicator in the morning and also two tablets at night, with treatment being continued through at least two menstrual periods. During menstruation it is desirable to increase medication to eight tablets daily to combat the alkalinity of the menstrual flow.

Warm acid douches (2 ounces of 5 per cent acetic acid or white vinegar to 2 quarts of warm water) may be taken as often as desired for hygienic purposes.

Floraquin contains Diodoquin® (diiodohydroxyquinoline, U.S.P.), the safe and effective protozoacide and fungicide. Lactose, anhydrous dextrose and boric acid are included to help restore the normal acid pH of the vaginal secretions. Such an acid vaginal medium then encourages the growth of normal flora and makes the environment unfavorable for pathogens.

A Floraquin applicator is supplied with each box of 50 (a new package size) Floraquin tablets. G. D. Searle & Co., Research in the Service of Medicine.

New Floraquin Applicator and commercial package of 50 Floraquin tablets available on request to . . .

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PHYSICIANS CASUALTY AND HEALTH ASSOCIATIONS
OMAHA 2, NEBRASKA

The Month in Washington

Washington, D. C.—A little publicized study group of eight physicians and scientists has submitted a report to the Secretary of Health, Education, and Welfare that promises to stimulate considerable debate by all interested in medical research, including members of Congress.

The committee was appointed by the National Science Foundation a year ago at the request of former HEW Secretary Hobby for "a critical review" of the scope and distribution of all phases of medical research where U. S. funds are used. Heading the committee was Dr. C. N. H. Long of the Yale School of Medicine.

The committee has made the following three basic proposals:

1st, that research within the National Institutes of Health be levelled off, and policy and personnel matters there be brought under the scrutiny of an advisory board of non-governmental medical scientists.

2nd, that other research under the Public Health Service, including teaching grants to institutions and fellowships, be put under a new Office of Medical Research and Training reporting directly to the HEW Secretary and outside the control of PHS.

3rd, that emphasis be placed on general research rather than, as is the present trend, upon specific grants for specific disease studies, the so-called categorical approach.

On receipt of the report, Secretary Folsom promised it would be studied "intensively" both by HEW and PHS officials, but he set no time deadlines.

The Long Committee noted the tremendous growth in federal medical research during and since World War II and the increasing role played by PHS. While conceding that PHS has done its job effectively, the committee felt that the time has come for re-examining the concentration of activities under one agency.

On its first point, the committee said NIH is making a major contribution in medical research and that senior appointments there should actually become "the most sought after in the country." It suggested legislation that would permit employment of research scientists at the Institute without regard to commissioning in the PHS Corps or salary limitations imposed by civil service.

On its second basic proposal, the committee recommended that the new agency have authority over (a) unrestricted, long-term institutional grants, (b) grants for research, both categorical and non-categorical, (c) fellowships and traineeships in medical and related areas, and (d) grants for construction of research and teaching facilities.

Commenting on the categorical approach to re-

KNOX Protein Previews



New Booklet Presents
Latest Facts on Feeding the Sick



Adequate nutrition during illness and convalescence is essential for recovery whether the patient is managed in the hospital or at home. In the latter case, physicians often must devote much time to instructing those responsible for caring for the sick in good nutritional practices.

"Meal Planning for the Sick and Convalescent" has been designed to relieve you of the need for repeating over and over again essential dietary facts. This new Knox booklet presents in layman's language the latest nutritional applications of proteins, vitamins and minerals, gives practical hints on serving food to adults and children, suggests ways to stimulate appetite and describes diets from clear liquid to full convalescent. Best of all it offers the homemaker for the first time detailed daily suggested menus for each type of diet, plus 14 pages of tested nourishing recipes.

If you would like copies of this new timesaving Knox booklet for your practice, use the coupon below.

Chas. B. Knox Gelatine Company, Inc.
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Please send me.....copies of the new Knox "Sick and Convalescent" booklet.

YOUR NAME AND ADDRESS

A message to the members of the

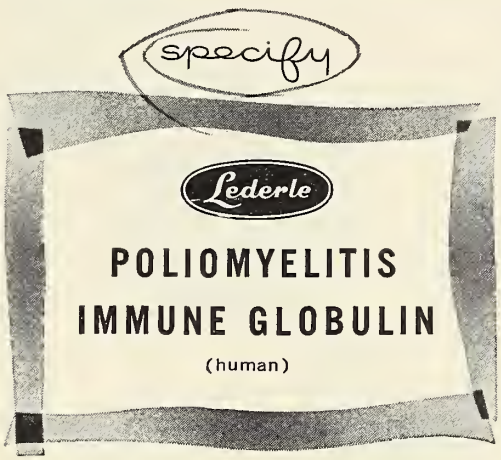
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For the modification of measles and the prevention or attenuation of infectious hepatitis and poliomyelitis.

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AMERICAN Cyanamid COMPANY
PEARL RIVER, NEW YORK

search, the committee said the public has been "led to believe, consciously or unconsciously, that the donation of sufficient sums of money is all that is needed to eradicate diseases which have plagued mankind for centuries."

In Congress, any move away from categorical grants in medical research is certain to produce fireworks. Some Senators and Representatives believe that it is the responsibility of Congress to pinpoint where the money that it appropriates is to be spent, and they are not inclined to make an exception for research money.

After detailed hearings and study by a subcommittee, two bills on military medical legislation went through the House without change. The expectation is that action on them will not be long delayed in the Senate.

One is designed to make military medical careers more attractive by allowing credit for time spent in medical school and internship, and setting up a series of three $50 per month raises after three, six and 10 years' service. These would be in addition to the present $100 per month special pay for medical officers. Public Health Service medical officers would benefit, as well as those in Army, Navy and Air Force.

The other bill well on its way to becoming a law allows dependents of servicemen to receive private hospital and medical care, with the government paying the costs of the insurance or health plan coverage, and the dependent the first $25 of the hospital bill. The Secretary of Defense, however, could limit or deny such private care is areas where he determines that military medical facilities are adequate to handle the service families.

NOTES

Some of the pharmaceutical houses have told Secretary Folsom that they plan to use more personnel and equipment to step up production of Salk vaccine, but his expectation still is that it will be "many months" before there will be enough vaccine for three shots for "all who need them."

Almost all medical programs handled by U. S. Public Health service are virtually assured of comfortable increases in money for next fiscal year. The House approved recommendations of its Appropriations Committee without change. The only large reduction was $19 million in money for the Hill-Burton hospital construction program, the committee explaining that this action was taken because the "new" HB program (for clinics, chronically ill hospitals, nursing homes, rehabilitation centers) is getting off to a slow start.

A new suggestion for helping to pay for medical care comes from Rep. Charles S. Gubser (R., Calif.). He is proposing that full income tax deductions be allowed for all medical expenses of children under six years of age.

AMERICAN TRUDEAU SOCIETY

Seven special lectures, eight panel discussions on subjects of immediate interest in the management of pulmonary diseases, and 11 sessions of scientific papers have been planned for the 51st annual meeting of the American Trudeau Society, medical section of the National Tuberculosis Association, at the Statler Hotel, New York City, May 21-24. Programs and reservation blanks can be secured from the National Tuberculosis Association, 1790 Broadway, New York City 19.

REVIEWS OF MEDICAL MOVIES

The AMA Committee on Medical Motion Pictures announces that Booklet No. 7 of its Reviews is now ready for distribution. It contains 83 evaluations of medical and health films originally published in J.A.M.A. during 1955. The price of Booklet No. 7 is 25 cents, and the complete set of seven booklets, containing all reviews published since 1946, can be purchased for $1.

GREAT LAKES REGION SURGICAL MEETING

Sixty-two surgeons from 15 states will participate as speakers at the Great Lakes Division regional meeting of the U. S. Section, International College of Surgeons, at Madison, Wisconsin, April 26-28.

Following is a list of the scientific papers to be presented at the second and third days' sessions:

Pancreatic tumors—C. E. Moore, Harrisburg, Penna.

Surgical Treatment of Breast Carcinoma—L. P. River, Oak Park, Ill.

Proctological Problems in Gynecological Patients—G. F. Douglas, Birmingham

Planning Incisions for Breast Surgery—R. R. Coffey, Kansas City, Mo.

Tantalum Mesh in Herniorrhaphy—C. C. Guy, Chicago

Ulcerative Colitis—H. E. Bacon, Philadelphia

Primary Repair of Traumatic Injuries of the Face—N. Owens, New Orleans

Diverticular Disease—Curtice Rosser, Dallas

Trigeminal Neuralgia—Collin S. MacCarty

Indications for Prostatic Resection—G. J. Thompson, Rochester, Minn.

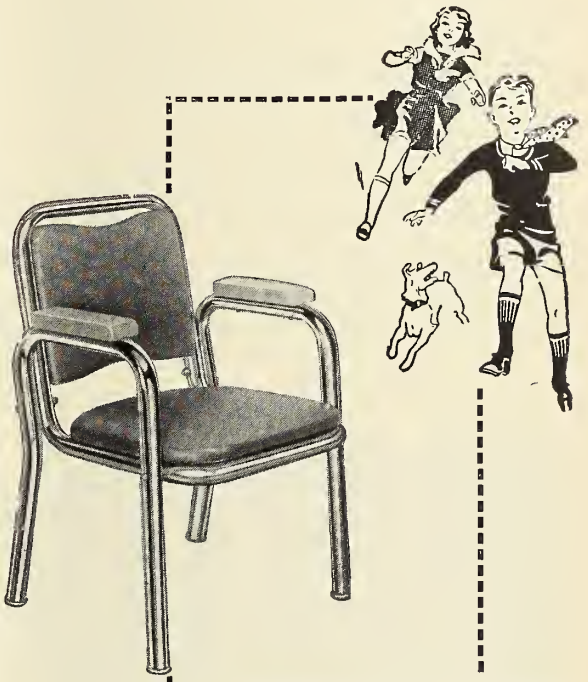
Intestino-Vesical Fistula—G. H. Ewell, Madison

Plastic Surgical Repair of Urethral Stricture—D. A. Culp, SUI

Surgical Treatment of Hepatitis—A. A. Strauss, Chicago

There will be panels on "The Acute Surgical Abdomen," "Gastrointestinal Hemorrhage," "Biliary Surgery," "Problems of Thyroid Surgery," "Problems of Herniorrhaphy," "Colon Surgery Problems," "Urolithiasis," "Surgical Problems of Gastroduodenal Ulcer" and "Management of Hip Fractures." An entertainment program is being planned for physicians' wives.

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Surgical Anatomy & Clinical Surgery, Two Weeks, June 18
Surgery of Colon & Rectum, One Week, May 7, June 18
General Surgery, Two Weeks, April 23
Thoracic Surgery, One Week, June 4
Esophageal Surgery, One Week, June 11
Breast & Thyroid Surgery, One Week, June 18
Gallbladder Surgery, Ten Hours, June 25
Fractures & Traumatic Surgery, Two Weeks, June 18
Varicose Veins, Ten Hours, April 30, June 18
GYNECOLOGY—Office & Operative Gynecology, Two Weeks, April 16, June 18
Vaginal Approach to Pelvic Surgery, One Week, April 30, June 11
OBSTETRICS—General & Surgical Obstetrics, Two Weeks, May 7
MEDICINE—Internal Medicine, Two Weeks, May 7
Electrocardiography & Heart Disease, Two Weeks Basic Course, July 9
Gastroscopy & Gastroenterology, Two Weeks, September 10
Dermatology, Two Weeks, May 7
RADIOLOGY—Diagnostic X-Ray, Two Weeks, April 30, September 17
Clinical Uses of Radioisotopes, Two Weeks, May 7
PEDIATRICS—Intensive Review Course, Two Weeks, May 14
Neurological Diseases: Cerebral Palsy, Two Weeks, June 18
UROLOGY—Two-Week Course, October 8
Cystoscopy, Ten Days, by appointment

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*Krantz, J. C., Jr., and Carr, C. J.: The Pharmacologic Principles of Medical Practice, ed. 3, Baltimore, The Williams and Wilkins Company, 1954, p. 998.

98556

PERSONALS

The physicians appointed to membership on the governor's mental health committee are **Drs. W. C. Brinegar,** of the Cherokee Mental Health Institute; **Dr. Norman Nelson,** dean of the SUI College of Medicine; and **Dr. Paul Kersten,** of Fort Dodge.

Dr. J. Maclean Smith, assistant professor of medicine at SUI, addressed a conference on staphylococcal infections sponsored by the Section on Biology of the New York Academy of Sciences, February 16. His topic was "Studies on the Fate of Virulent and Avirulent Staphylococci in Mice."

Using his experiments as a model, Dr. Smith was able to demonstrate the whole spectrum of virulence with coagulase positive and negative organisms. He also presented evidence which suggests that the ability of such microorganisms to multiply in the kidney may be a factor in the virulence of Staphylococci in human cases of septicemia.

Dr. Louis E. January, professor of medicine at SUI, spoke at the January 31 meeting of the Kansas City Heart Association on "Management of Rheumatic Heart Disease in Adults," and, on the same day, addressed a staff meeting of the Thompson Brumm Knepper Clinic, in St. Joseph, on "Results From Surgical Treatment of Acquired Valvular and Congenital Septal Defects."

Dr. William B. Bean, head of the Department of Medicine at SUI, has recently been made a member of the council of the American Clinical and Climatologic Association. He has also been put on the council of the Alpha Omega Alpha publication PHAROS.

After completion of his internship at Great Lakes, Illinois, **Dr. John S. Bailey** will associate himself with **Drs. John D. Paul** and **Gerald F. Brown** in general practice at Anamosa. Dr. Bailey is a graduate of the College of Medicine at SUI.

At the meeting of the Section on Laryngology, Otology and Rhinology which is to be a part of the AMA sessions in Chicago, June 12-14, **Dr. Clair M. Kos,** of the SUI College of Medicine, will read a paper on "Hearing Conservation: Fenestration or Stapes Mobilization."

Dr. M. E. Alberts, of Des Moines, completed requirements in March for becoming a diplomate of the American Board of Pediatrics.

Dr. Ralph Gorrell, of Clarion, addressed meetings of the Latin American Academy of Physical Medicine in Puerto Rico and the Dutch West Indies during February. At San Juan, Puerto Rico, he spoke on "Management of the Painful Back"; at Willemstad, Curacao, on "Use of Sympathetic Blocks in Painful Conditions"; and in Paramaribo, Surinam, on "Seventeen Years' Experience in the Use of Local Anesthetics for Painful Musculo-Skeletal Conditions." Mrs. Gorrell accompanied him on the trip.

In mid-February, announcement was made of the marriage of **Dr. Emmet V. Ayers,** of Charles City, and the former Miss Marion Spurbeck, who had been a nurse in pediatrics at Allen Memorial Hospital, Waterloo. On their wedding trip, they visited Florida.

Dr. Russell W. Blanchard, who has practiced radiology at Council Bluffs since 1946 and is a member of the Board of Education there, has resigned his staff appointment at Jennie Edmundson Hospital, effective April 15, and has announced his intention of joining two other radiologists in practice at Waterloo.

On March 1, a public reception was held at the Community Building at Sergeant Bluff in honor of **Dr. Roy N. Conmey,** who has served the town throughout the past 50 years. Dr. Conmey was also honored at the meeting of the Woodbury County Medical Society held on the evening of that same day.

Dr. John D. Lyon, of McGregor, left on March 3 to join **Dr. Herman Drill** in practice at Hopkins, a suburb of Minneapolis.

Dr. D. W. Pfeiffer has returned from military service and will resume his practice at McGregor shortly.

Drs. Robert A. Powell and **Kenneth Gee** have filed as candidates for two positions on the Board of Education at Shenandoah. Since a third man has filed, the doctors are, in a manner of speaking, opponents in the election, though it is of course possible that both will be elected.

After seven successive daughters, a son was born on February 16 to **Dr.** and Mrs. **R. F. Deranleau,** of Perry.

On March 1, **Dr. R. W. Driver** and **Dr. C. P. Addison** moved from the offices they have maintained in Waterloo with **Drs. J. R. Thomas, J. H. Jeffries** and **A. M. Dolan,** to locate at 720 East Fourth Street in the same city.

Dr. David W. Wright, Decorah physician and

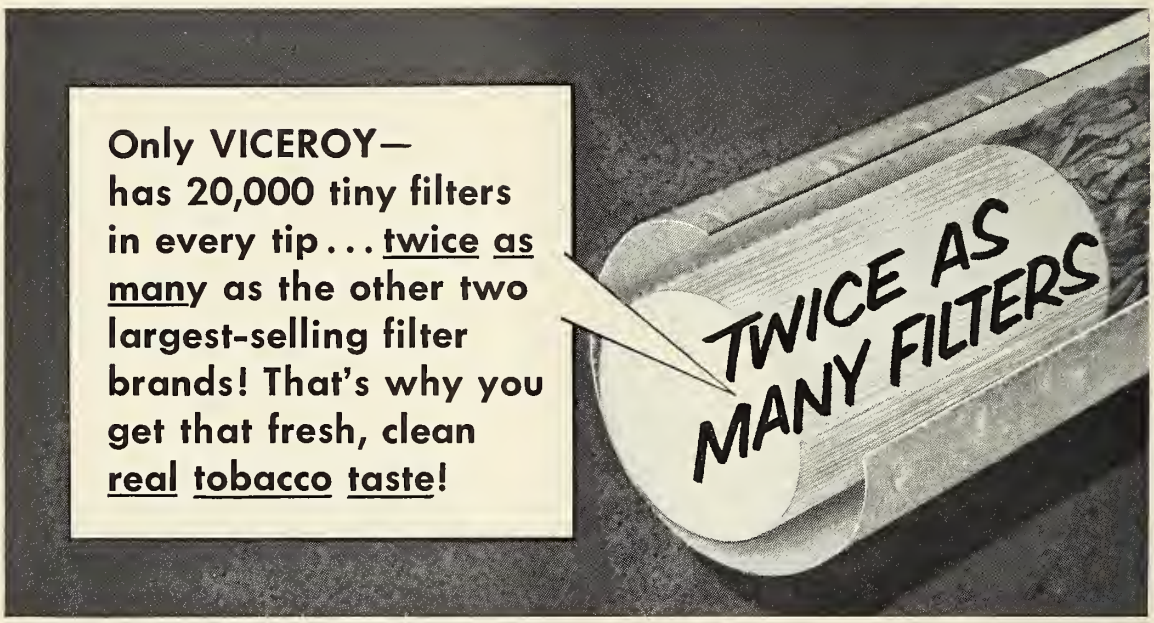
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surgeon, was named his town's "Most Outstanding Young Man for 1955" by the Junior Chamber of Commerce there, on February 21.

Since coming to Decorah in 1954, following his discharge from the Navy, Dr. Wright has become county health officer, secretary of the hospital staff, secretary of the county medical society, vice-president of the local T-B association, and a member of AAGP, the Masonic and Elks lodges, the Methodist Church, the society for crippled children, the American Legion and the Naval Reserve.

Dr. Charles D. Stinard, who formerly practiced at Franklin, New York, has opened an office in Glenwood.

Dr. Robert W. Linthacum will be associated with **Dr. C. Ronald Roberts**, at Dysart, after June 1. A graduate of the SUI College of Medicine, he is now a resident in radiology at the VA Hospital in Iowa City.

A case of trachoma at Council Bluffs was reported to the State Department of Health on March 5. **Dr. R. H. Heeren**, director of the Department's Division of Communicable Diseases, said it was the first in Iowa in more than eight years. "The disease is contagious," he said, "but only as the result of continued close contact, usually within a family."

Dr. Norman D. Render, former superintendent of the Mental Health Institute at Clarinda, was presented an award for outstanding personal service by the Iowa Association for Mental Health at its annual meeting in Cedar Rapids on February 7. Dr. Render has taken a position as staff psychiatrist at the state hospital in Norfolk, Nebraska.

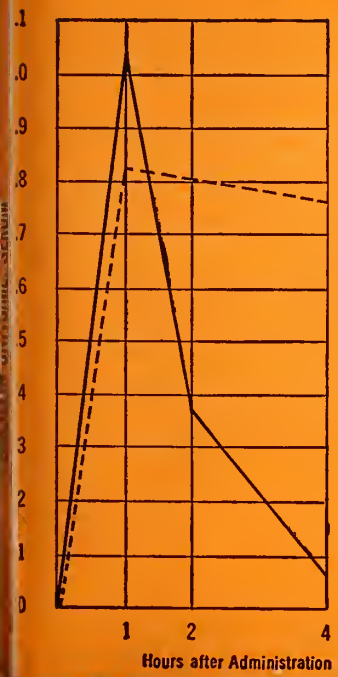
Dr. Werner M. Hollander, of Davenport, was hospitalized there in mid-February.

At the close of the annual meeting of the Sioux Valley Medical Association, in Sioux City on February 23, **Dr. E. W. Arnold**, of Adrian, Minnesota, was named to succeed **Dr. W. L. Downing**, of LeMars, as president. **Dr. R. P. Reding**, of Marion, South Dakota, was elected vice-president and **Dr. E. H. Sibley**, of Sioux City, and **Dr. Arnold Myrabo**, of Sioux Falls, South Dakota, were re-elected secretary and treasurer, respectively.

Burglars picked the combination of a safe in the office of **Dr. Carl E. Sampson**, in Creston, during a weekend late in February and made off with between $600 and $700 in cash.

The newly appointed medical director of the Mental Health Institute at Independence, **Dr. J. O. Cromwell**, is a graduate of the College of Med-

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(1) Payne, R. W.; Shetlor, M. R.; Forr, C. H.; Hellboum, A. A., ond Ishmoel, W. K.: J. Lob. & Clin. Med. *45*:331, 1955. (2) Bunim, J. J.; Willioms, R. R., ond Block, R. L.: J. Chron. Dis. *1*:168, 1955. (3) Holbrook, W. P.: M. Clin. North Americo *39*:405, 1955.

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icine at SUI. He comes to Iowa from the superintendency of the state hospital at Blackfoot, Idaho.

Dr. Pierre Sartor was presented a gift at a dinner meeting of the Chamber of Commerce in Titonka which was attended by 100 of his fellow townsmen. He is a Life Member of the Iowa State Medical Society, and was named the Society's "General Practitioner of the Year" in 1953.

Dr. Robert Dawson, a graduate of the SUI College of Medicine now interning at Broadlawns-Polk County Hospital, Des Moines, has made tentative plans to start practice in Graettinger in July.

Dr. Robert A. Ryan, after remodelling and air-conditioning the offices occupied until recently by **Dr. L. D. James**, in Fairfield, moved to them late in February.

Dr. Roy O. Sebek, an orthopedist, has joined **Dr. F. L. Knowles** in practice at Ft. Dodge. He received his M.D. degree at St. Louis University in 1949 and subsequently served both the Army and the Navy—20 months with one and 20 with the other. He received his specialty training at Northwestern University and at the Shriners' Hospital for Crippled Children, in Minneapolis.

Drs. J. H. Randall and **Wm. C. Keettel,** of the Department of Obstetrics and Gynecology at SUI, had parts in the program of the sectional meeting of the American College of Surgeons, in Colorado Springs on March 5-7. Dr. Randall, who is head of the Department, spoke on malignancy of the corpus uteri, and Dr. Keettel participated in a symposium on cancer.

Following an inspection of the Fayette County Home which he made along with other members of his county medical society, **Dr. Wm. J. Wolf,** of West Union, is quoted as having said, "It was the collective opinion of the doctors present that Fayette County can well be proud of what is probably the finest institution of its kind in the state of Iowa."

At the 1955 clinical meeting of the American Academy of Obstetrics and Gynecology, in Chicago December 12-14, **Dr. F. W. Kapke,** of Mason City, won an award in the x-ray diagnosis contest.



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Dr. Wm. M. Sproul, of Des Moines, was elected vice-president of the American Academy of General Practice at the organization's meeting in Washington last month. He is a past-president of the Iowa Academy of GP's, and has been a member of the AAGP's board of directors.

DEATHS

Dr. Robert Burroughs Fields, 82, who practiced at LaPorte City from 1903 until 1948, died at Daytona Beach, Florida, on March 8, following an illness of several months.

Dr. Clarence Harman, 80, who practiced 35 years at Whiting and 10 years at Emerson, died at an Omaha hospital on March 10 after a month's illness.

Dr. Mathew Adrian Tinley, 80, of Council Bluffs, died of pneumonia at a hospital there on March 11. Probably the only man who was simultaneously a practicing physician and a combat officer, he held the rank of Lieutenant General, Retired.

SUI HAS GOOD RECORD IN HEART SURGERY

From July, 1949, to January, 1956, 413 heart operations were performed at University Hospitals, Iowa City, with no more than 30 subsequent hospital deaths. Thus, the mortality for that period was 7.3 per cent. The procedures were carried out under the direction of Dr. Johann L. Ehrenhaft, chairman of the Division of Chest Surgery. Commenting on those statistics, Dr. L. E. January said, "The record of University Hospitals speaks for itself, inasmuch as we now routinely perform all types of cardiovascular surgery for which there are operations of proven value without a prohibitive mortality."

At SUI, operations for the correction of mitral stenosis have been the most frequently performed type of heart surgery, and the next commonest have been those designed to remedy patent ductus arteriosus.

The College of Medicine at Iowa City has acquired an extracorporeal pump and oxygenator—the so-called "substitute heart"—and has been using it experimentally upon dogs in an effort to improve the technic and the safety of its use. But as yet it has not been used in operations upon human patients there.

SUI was one of the first institutions to conduct research with arterial homografts, and in its Cardiovascular Laboratory continuing research upon the diagnosis of heart disease and heart abnormalities is maintained.

ROSTER OF IOWA PHYSICIANS IN MILITARY SERVICE

As of March 10, 1956

Bateman, R. D., Iowa City
(Keesler Field, Mississippi) .....Capt., U.S.A.F.
Berard, Wm. P., Iowa City
(Seattle, Washington) .....Lt. Cdr., U.S.N.R.
Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego,
Calif.) .....Lt.(j.g.), U.S.N.R.
Cooper, T. J., Iowa City
(Orlando, Florida) .....Capt., U.S.A.F.
Davidson, M. C., Emmetsburg
(El Paso, Tex.) .....Col., A.U.S.
Day, R. T., Hampton
(18th THC Hospital, APO 123, New York)
.....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Dieckman, M. R., Grundy Center
(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Frys, Russell N., Iowa City
(Ft. Clayton, Canal Zone) .....Capt., A.U.S.
Geist, James H., Iowa City .....
Gleeson, J. J., Vail
(Fargo, North Dakota) .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Goplerud, C. P., Iowa City
(U.S.A.H., Albuquerque, New Mexico) .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
.....Capt., A.U.S.
Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Hastings, R. A., Ottumwa
(U.S. Naval Hosp., Pensacola, Florida) .. Lt., U.S.N.
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Hodges, R. E., Iowa City
(Silver Spring, Maryland) .....Capt., A.U.S.
Hogenson, G. B., Eagle Grove
(Navy Center, Omaha, Nebr.) .....U.S.N.
Howe, G. W., Iowa City
(Grosse Isle, Michigan) .....N.A.S.
Johnson, W. A., Emmetsburg
(Corona, California) .....Lt., U.S.N.R.
Johnston, T. L., Iowa City
(Qtrs. 12, Warren AFB, Cheyenne, Wyo.) .....
Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Koptik, George, Jr., Garwin
(Camp Lucas, Sault Ste. Marie, Mich.) .....
Kruse, R. H., Conrad
(Pearl Harbor, T. H.) .....Lt., U.S.N.R.
Larson, Gerald E., Elk Horn
(A.P.O. 856, New York, N. Y.) .....Capt., U.S.A.F.
Lawler, Matthew P., Des Moines
(Corona, California) .....U.S.N.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.

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Supplied: Bottles of 100 and 500 tablets

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Each 5 cc. (approx. 1 tsp.) contains:
Methscopolamine bromide ..... 1.25 mg.

Dosage:
1 to 2 teaspoonfuls three or four times daily.

Supplied: Bottles of 4 fluidounces

Sterile Solution

Each cc. contains:
Methscopolamine bromide ..... 1 mg.

Dosage:
0.25 to 1.0 mg. (¼ to 1 cc.), at intervals of 6 to 8 hours, subcutaneously or intramuscularly.

Supplied: Vials of 1 cc.

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McFadden, F. Ross, Davenport
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Marme, George W., DeWitt .....U.S.A.F.
Meyer, Paul G., Manchester
(APO, New York) .....Capt., A.U.S.
Montgomery, A. E., Jefferson
(Phoenixville, Pa.) .....Lt. Col., A.U.S.
Olsen, Max, Minden
(66 N. Oak St., Trfwy, Kansas City, Mo.) Lt., U.S.N.
Olson, Stewart O., Des Moines
(Seattle, Washington) .....Lt., USN
Powell, Robt. M., Iowa City
(U.S.A. Hosp., Ft. Hood, Texas) .....Capt., A.U.S.
Rainy, Robert L., Iowa City .....
Rodgers, G. H., Mt. Ayr
(Brooke Army Hosp., Ft. Sam Houston, Texas)
.....Lt. A.U.S.
Rogers, Edward A., Anamosa (U.S.P.H.S. Hospital, Seattle) .....
Sacco, Severino O., Iowa City
(Phoenixville, Penna.) .....
Saunders, R. J., Colfax
(Detroit, Michigan) .....1st. Lt., U.S.A.F.
Sear, John, Alden
(Box 6254, Fitzsimons Army Hosp., Denver 8)
.....1st Lt., A.U.S.
Sears, Richard H., Iowa City
(Washington, D. C.) .....Lt., USNR
Severson, Wayne L., Slater
(54th Disp., Greater Pittsburgh Airport, Coraopolis, Penna.) .....Capt., U.S.A.F.
Sinton, D. W., Iowa City
(Denver, Colorado) .....A.U.S.
Slate, W. G., Iowa City .....
Swanson, Eric M., Iowa City
(Omaha, Nebraska) .....
Thompson, J. W., Ames
(Camp Breckinridge, Kentucky) .....Capt., A.U.S.
Trosman, Harry, Iowa City
(Camp Pendleton, California) .....U.S.N.R.
Turner, R. M., Armstrong
(11th Field Hosp., APO 178, New York City)
.....Capt., A.U.S.
Winter, F. D., Burlington
(Elmendorf A.F.B., Anchorage, Alaska) ...U.S.A.F.
Workman, R. D., Ruthven (Deep Sea Divers, Naval Gun Factory, Washington, D.C.) .....Lt., U.S.N.

DIABETES SYMPOSIUM

A symposium on Clinical and Public Health Aspects of Diabetes will be held at the Sherman Hotel, Chicago, on May 11 and 12, under the joint sponsorship of the Chicago Diabetes Association, the Chicago Board of Health, the Illinois Department of Health and U.S.P.H.S. Degenerative complications of diabetes, the juvenile diabetic and pregnancy in diabetes are among the topics scheduled for discussion, and there will be a demonstration of the use of testing equipment for screening programs.

Faculty members include Dr. H. T. Ricketts, president of the American Diabetes Association; Dr. A. R. Colwell, head of the Department of Medicine at Northwestern; Dr. A. B. Kurlander, chief of the U.S.P.H.S. Chronic Disease Program; and Dr. H. L. C. Wilkerson, Director of the Diabetes Research Training Center, Boston. The course has been approved by the Illinois Academy of General Practice for Category II (informal) postgraduate credit. No fees will be charged.

PROCTOLOGISTS' ANNUAL MEETING

Every phase of proctology will be covered in the scientific papers, panels, symposium and motion pictures at the Eighth Annual Convention of the International Academy of Proctology at the Drake Hotel, Chicago, April 23-26.

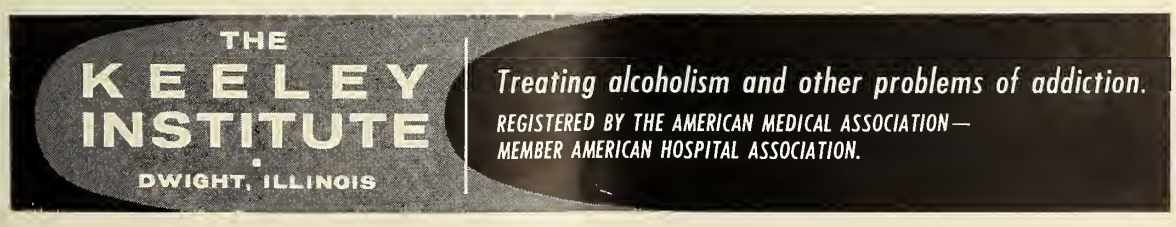
The list of speakers includes Drs. J. B. Kirsner, M. B. Lichtenstein, G. J. Rukstinat, W. C. Bornemeier, H. A. Gussin, S. J. Shafer, J. R. Wolff, R. R. Cross, M. S. Sadove, L. Aries, K. A. Meyer, E. I. Greene, W. H. Shales, J. D. Majarakis, H. F. Weisberg, M. G. Spiesman, G. Shropshear, C. Portes and E. Kowalski, all of Chicago, H. A. Springer, of Cincinnati, D. C. Collins, of Hollywood, H. Monat and J. I. Weinstein, of Washington, A. L. Solow and S. Mikals, of Boston, E. J. Halligan, of Jersey City, and W. Lieberman, of Brooklyn.

CAMP FOR DIABETIC CHILDREN

A summer camp for diabetic children will be opened for the eighth season under the auspices of the Chicago Diabetes Association, Inc., from July 15 to August 5, at Holiday Home, Lake Geneva, Wisconsin (just beyond the Illinois border on the road between Chicago and Madison).

In addition to the complete camp personnel, the Association furnishes a staff of resident physicians and dietitians trained in the care of diabetic children. The age limits are 8 and 14 years, both boys and girls are accepted, and fees are based upon the economic circumstances of the children's parents.

Physicians are invited to write to the Association, at 5 South Wabash Avenue, Chicago 3. Limited facilities necessitate that reservations be made early.



Coming Meetings

(Continued from page 212)

May 1-25	**Clinical Obstetrics.** Boston Lying-in Hospital, Boston
May 2-4	**Annual Meeting, Medical and Chirurgical Faculties of State of Maryland.** Baltimore
May 3-5	**American Goiter Association.** Drake Hotel, Chicago
May 4-25	**Advanced Urology for Specialists.** New York University, NYC
May 5-7	**Obstetrics for GP's.** U. of Minn. Center for Continuation Study, Minneapolis
May 6-9	**Annual Meeting, Oklahoma Medical Association.** Municipal Auditorium, Oklahoma City
May 7-9	**Application of Biochemistry to Pathology.** Armed Forces Institutes of Pathology, Washington
May 7-11	**Vaginal Approach to Pelvic Surgery.** Cook Co. Grad. Sch. Med., Chicago
May 7-11	**150th Annual Meeting, Medical Society of the State of New York.** Statler Hotel, NYC
May 7-11	**Allergy.** Montefiore Hotel, Pittsburgh
May 7-12	**Electrocardiography for GP's.** U. of Minn. Center for Continuation Study, Minneapolis
May 7-11	**Surgery of Colon and Rectum.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Internal Medicine.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Dermatology.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Clinical Uses of Radioisotopes.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**General and Surgical Obstetrics.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Regional Anesthesiology.** New York University, NYC
May 7-18	**Diagnostic Radiology.** Cook Co. Grad. Sch. Med., Chicago
May 7-19	**Control of Pain by Nerve Block.** New York University, NYC
May 7-25	**Cardiology.** New York University, NYC
May 9-11	**Dermatology.** U. of Tennessee College of Medicine, Memphis
May 11-12	**Clinical and Public Health Aspects of Diabetes.** Sherman Hotel, Chicago
May 14-17	**Diseases of the Heart.** Armed Forces Institutes of Pathology, Washington
May 14-18	**Symposium on Dermatology & Syphilology.** New York University, NYC
May 14-19	**Proctology for GP's.** U. of Minn. Center for Continuation Study, Minneapolis
May 14-25	**Surgery of Colon & Rectum.** Cook Co. Grad. Sch. Med., Chicago
May 14-25	**Cystoscopy.** Cook Co. Grad. Sch. Med., Chicago
May 14-25	**Intensive Review Course in Pediatrics.** Cook Co. Grad. Sch. Med., Chicago
May 14-25	**Surgical Technic.** Cook Co. Grad Sch. Med., Chicago
May 14-25	**Gastroenterology.** Cook Co. Grad. Sch. Med., Chicago
May 14-June 8	**General Surgery.** Massachusetts General Hospital, Boston
May 17-19	**Management of Diabetes.** U. of Colo. Med. Center, Denver
May 18-20	**Annual Meeting and Scientific Session,** California Heart Association, LaPlaya Hotel, Carmel
May 21-22	**Clinical Cardiology.** Indiana University School of Medicine, Indianapolis
May 21-24	**51st Annual Meeting, American Trudeau Society.** Statler Hotel, NYC
May 21-25	**Radium Therapy.** Cook Co. Grad. Sch. Med., Chicago
May 21-25	**Clinical Bronchoscopy.** Cook Co. Grad. Sch. Med., Chicago
May 21-25	**Obstetrics & Gynecology Seminar.** Walter Reed Army Medical Center, Washington
May 21-25	**Anesthesiology: Endotracheal and Related Methods.** New York University, NYC
May 21-25	**General Surgery.** Cook Co. Grad. Sch. Med., Chicago
May 23	**Lung Diseases and Pulmonary Function.** Indiana University School of Medicine, Indianapolis
May 23-24	**Calcium and Phosphorus Metabolism.** Grad. Med. Sch. of Univ. of Pennsylvania, Philadelphia
May 24-26	**Surgery for Surgeons.** U. of Minn. Center for Continuation Study, Minneapolis
May 25-27	**Ionic (Acid Base) Balance and Water Balance.** Grad. Med. Sch. of Univ. of Pennsylvania, Philadelphia
May 28-June 1	**International Symposium on Venereal Diseases and Treponematoses.** Statler Hotel, Washington
May 28-June 1	**Pediatrics for Pediatricians.** Children's Hospital of Philadelphia
May 28-June 8	**Electrocardiographic Interpretation.** Michael Reese Hosp., Chicago
May 30-June 2	**Allergy in Relation to Otolaryngology.** Park Plaza Hotel, St. Louis

ETIOLOGY OF GALACTOSE DIABETES

Scientists of the USPHS National Institute of Arthritis and Metabolic Diseases have discovered the cause of a little-understood children's disease, galactosemia or galactose diabetes. It ordinarily appears within a few days after birth and is frequently fatal. The patient is unable to utilize or even tolerate milk in any form.

Drs. Herman M. Kalckar, Elizabeth P. Anderson and Kurt J. Isselbacher have discovered a hitherto unknown enzyme in normal red blood cells which they call P-Gal transferase. This, they have found, is necessary for the conversion of galactose into glucose, the common sugar of the blood.

Diagnosis of galactosemia is difficult because its symptoms resemble those of other diseases. Diarrhea, lack of appetite, loss of weight and jaundice appear in the earlier stages. In the later ones, there are cirrhosis of the liver, mental retardation, blindness due to cataract, and death.

When the disease is diagnosed promptly and the patient is put on a milk-free diet, he develops normally. The discovery of the basic cause promises to facilitate the development of a rather simple diagnostic test which will make prompt recognition easy.

MANAGEMENT OF DIABETES

The University of Colorado School of Medicine will offer a two-and-a-half-day course in The Management of Diabetes for practicing physicians May 17-19. The first morning will be devoted to a review of basic physiology, endocrinology, pathology and diagnosis. Clinical aspects of the disease and its complications will then be presented, with emphasis on management. The final session, on Saturday morning, will be a live clinic. The guest lecturers will be Dr. A. R. Colwell, head of the Department of Medicine at Northwestern; Dr. H. T. Ricketts, professor of medicine at the University of Chicago and president of the American Diabetes Association; and Dr. H. F. Root, physician-in-chief of the New England Deaconess Hospital, Boston.

SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa

Thursday at 11:15 a.m.

"Sixteen—Growing Up"

April 5 ..... Mama's Boy—Daddy's Girl
April 12 ..... Habits and Health
April 19 ..... Accidents and Alcohol
April 26 ..... Dizzy Whirl

WSUI—Iowa City, Iowa

Tuesday at 11:45 a.m.

"Medicine Fights the Killers"

April 3 ..... Hypertension
April 10 ..... Accidents
April 17 ..... Nephritis
April 24 ..... Premature Birth

TELEVISION

WOI-TV—Ames, Iowa

Thursday at 10:00 p.m.

April 5 ..... Juvenile Delinquency (Part I)
April 12 ..... Juvenile Delinquency (Part II)
April 19 ..... Pregnancy
April 26 ..... Accidents and Poisons

KGLO-TV—Mason City, Iowa

Monday at 2:00 p.m.

April 2 ..... Posture
April 9 ..... Communicable Diseases
April 16 ..... Getting Along
April 23 ..... Habits

KCRG-TV—Cedar Rapids, Iowa

Sunday at 12:00 noon

April 1 ..... Eye, Ear, Nose and Throat
April 8 ..... Posture
April 15 ..... Communicable Diseases
April 22 ..... Getting Along
April 29 ..... Habits

KTIV-TV—Sioux City, Iowa

Saturday at 3:30 p.m.

April 7 ..... Rheumatic Fever
April 14 ..... Eye, Ear, Nose and Throat
April 21 ..... Posture
April 28 ..... Communicable Diseases

The foregoing schedules are subject to change at the discretion of the station managers.

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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI MAY, 1956 No. 5

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Presidential Address

LONNIE A. COFFIN, M.D.

FARMINGTON

As my time as president of the Iowa State Medical Society comes to an end, there are many things I should like to speak about and many problems I should like to discuss. However, time will permit mention of only a few of them.

First, I want to thank each and every member of the Society for his fine cooperation during the past year, and especially the officers for their assistance in carrying out the work of the organization. Also, I want to commend the various committees for their excellent work. I am sure that for the past several years the committees of the Society have been increasingly active. This past year has been no exception. I should be remiss if I did not mention the office personnel. I believe the Iowa State Medical Society has the finest staff that an organization could hope to have. All of the employees are cooperative, loyal, and diligent in their work—never complaining, and always attempting to do the best job possible.

PHYSICIAN-HOSPITAL CONTROVERSY

Of the many problems that have come before the Society this past year, some have been of great importance. Of these, I am sure the hospital-physician controversy has been the most serious. You all know how it started. I need not go into that. You all are aware of the many meetings between the hospital representatives and the doctors that were held in an attempt to settle the difficulties, all to no avail. On May 19 last, the hospital-physician trial opened in Polk County District Court before Judge C. Edwin Moore. As you know, this lawsuit was brought by the hospitals against the Board of Medical Examiners, the Attorney General, and the pathologists. The Iowa State Medical Society entered the suit as an intervenor, and the radiologists by counterclaim. After 13 weeks of hearings, Judge Moore rendered a decision favorable to the Iowa State Medical Society.

We have had many letters from medical societies in our sister states commending the position which the Iowa State Medical Society took in this hospital-physician controversy. They have followed the proceedings of the trial very closely. The American Medical Association through its House of Delegates in Boston last December, approved a resolution commending the Iowa State Medical Society for its courageous stand in the hospital-physician dispute.

Although we have been favored by the decision of Judge Moore, all is not over. The hospitals have appealed the district court decision to the Iowa Supreme Court, and if it is upheld, as we feel it will be, in all probability the issue will then be brought before the Iowa Legislature. Recognizing this possibility, the Iowa State Medical Society is preparing an educational program to inform physicians and the public on medicine's position in the hospital-physician controversy. Our first activity in this regard will be to make certain that all members of the Iowa State Medical Society are fully informed on the subject. Then, we shall step up our program of public education. I regret that this activity will be necessary. We in the Medical Society had hoped that the hospitals would accept Judge Moore's decision, and instead of continuing this fight, would have made a conscientious effort to comply with it. Personally, I feel a deep sense of regret at the existence of a conflict between doctors and hospitals and deplore both the mutually unfavorable publicity and the heavy expense with which both organizations have been burdened. We believe that Judge Moore's decision is practical and is one which could be implemented at the local level without difficulty, if the parties involved would make an honest effort to reach agreement. We are convinced that the provisions of his decree could be implemented in a manner which would neither disrupt proper hospital procedures nor necessitate any reduction of income to hospitals. Instead, the arrangements would result in protection for the best interests of the public and improvement in medical care.

I know from personal contact that hospital board members and administrators include many men of good will—men who, if permitted, would welcome an opportunity to establish hospital-specialist relations on a legal and ethical basis. We have not taken a position which would in any way block or prevent settlement of this controversy through negotiations between the two organizations. I am sure the officers of The Iowa State Medical Society would be willing to confer on the matter if representatives of the Iowa Hospital Association showed any interest in attempting to settle this problem within the framework of Judge Moore's decision.

Another problem of grave concern is the suit filed by the chiropractors. On December 23, 1955, the chiropractic association and seven chiropractors filed a petition for declaratory judgment against the State Department of Health and the Commissioner of Health seeking rights and privileges for chiropractors equal with and on the same basis as those now afforded doctors of medicine and osteopaths. The Iowa State Medical Soci-

Dr. Coffin delivered this address at the Annual Meeting of the Iowa State Medical Society, April 23, 1956.

ety has also entered this suit as an intervenor. Your officers felt they had no choice other than to come to the defense of the State Department of Health and the Commissioner of Health in this suit brought by the chiropractors.

COMMITTEE ACTIVITIES

I should again like to say just a few words about the care of veterans. My opinion on this subject has not changed since my address as president-elect a year ago. I still believe that all veterans whose disabilities are not the result of their military service should pay their own bills, but that any veteran suffering from a service-connected disability should receive the very best of medical care at government expense.

Just a few words about our public relations. I believe they are on the upgrade. We have a good public relations department in the office, and it is doing a magnificent job. Good public relations, however, still remain in our hands. One doctor can ruin more public relations in one day than that department can straighten up in 90 days. I should again like to say that our primary aim in life is to care for the sick to the best of our knowledge and ability. If we do that, our public relations will never get too bad.

Time won't permit mention of the work of all our committees, but I do want to call your attention to the activities of a few of them. The Committee on Legislation is certainly one of the most active committees of the Society. It serves as our watchdog for all legislation, both state and national. It maintains constant liaison with our senators and representatives, as well as with the county legislative contact men. In addition, it supervises the preparation of various legislative communications. Although this is not a legislative year, the Committee is constantly making plans for any eventuality that may arise during next year's session. I am sure that our Society should be justly proud that the chairman of its Legislative Committee has been made a member of the Legislative Committee of the AMA. That is a great honor for our Society.

The Committee on Medical Service has the responsibility for maintaining relations with Blue Shield, and this, in itself, is almost a full-time job. I am happy to report that these relations are better at this time than they have been at any time in the last two years, and I believe they will remain so. To enhance and strengthen our relationship with Blue Shield, a joint liaison committee has been established consisting of three representatives from the Board of Trustees and three representatives of the Board of Directors of Blue Shield. This committee will meet periodically for the purpose of exchanging information of mutual interest to the two organizations.

Another group that is doing outstanding work for the Society is the Grievance Committee. I am sure most of us do not appreciate just what this Committee has done. It has met at least once a month the past year and has disposed of a considerable volume of business. I believe this Committee is of outstanding value to our Society.

Because the Committee on Public Health has many subcommittees, I shall have time to mention only a few. The one on polio has had an unusual year, for it has had to deal with the Salk vaccine problem. I shall not go into the details of all of the negotiations that preceded the establishment of the Iowa Polio Vaccine Distribution Plan, except to report that we understand the plan approved for Iowa is and has been acceptable to the doctors, the pharmacists and the public.

The Rural Health Committee has developed a well-organized plan for physician placement which is coordinated with the headquarters office. It has also been responsible for the organization of the preceptor program which, as you know, has been a cooperative activity of the Society and the SUI College of Medicine. It has proved very helpful in the training of medical students, and has had its advantages for the preceptors as well. Outstanding in its realm of activities has been the liaison which it has established with other groups interested in the medical problems of farm families. It has worked very closely with the Iowa Farm Bureau Federation.

In health education, we have developed television programs which are now carried on four Iowa stations. Many of you have seen the "Medical Diary" series. The Health Education Committee is also responsible for the preparation of a column which appears in WALLACE'S FARMER every two weeks. This farm paper has a distribution of about 300,000.

One of the most vital subjects confronting our Society and the entire medical profession is the mental health of our people. Governor Hoegh has seen fit to appoint a Governor's Committee on Mental Health to examine this problem in Iowa. We all hope that this Committee will offer some suggestions for definite improvements in Iowa mental health facilities as well as plans for the prevention and treatment of mental disorders.

Several of my predecessors have spoken of highway safety. I must do the same. The death rate and the crippling of our people on the highways is appalling. It is my firm belief that we need a speed law in Iowa. In my opinion, it should be sixty miles per hour in the daytime and fifty at night. I also believe that we should have one or more patrolmen located in each county in the state at all times. If we do not have enough men to give that sort of coverage, then we should get more. It has been encouraging to see the Highway Patrol change its assignments so as to allow more patrol cars on the highways at night. The fact that the highway death toll is markedly higher on this date than it was one year ago is disturbing. It is evidence that some drastic action must

be taken to reduce the needless slaughter on the highways, and since the figures usually publicized do not include the numbers of those seriously crippled or disfigured, it is obvious that the situation is even more serious than most of us realize. For the sake of the injured survivors, we must wipe out highway accidents.

In closing, I should like to say that it has been a great honor to be president of the Iowa State Medical Society. I hope that in my small way I have been able to do something for the good of Organized Medicine and for the State Society. I thank you very, very much for the privilege of serving you.

The Practice of Medicine: An Art and a Science

Address of the President-Elect

WENDELL L. DOWNING, M.D.

LE MARS

The many activities and related problems of our State Medical Society have been adequately presented during this annual meeting. With your permission, I should like to depart from the usual subject material contained in the address of the president-elect.

The past several decades have shown great progress in the scientific phases of medicine, but the art of medicine has hardly kept pace. The art of medicine is difficult to define, but the physician-patient relationship is as vital to good medical practice today as it was when Hippocrates expounded it 400 years before the birth of Christ: "The art consists in three things—the disease, the patient and the physician. The physician is the servant of the art, and the patient must combat the disease along with the physician." The patient is a complex personality, not merely a collection of organs and systems, each with its own symptoms and signs. Many factors influence the health of the patient and must be considered both in diagnosis and in treatment. The patient's illness, if a major one, is rarely a one-organ or one-system ailment, but often is the result of family tendencies, of past illnesses and of functional and organic abnormalities due to infections, emotional strains, tensions and aging. The functions of all of the organs of the body are related one to another, and symptoms originating in one organ may result from disturbances in entirely different areas of the body.

A study of the patient as a whole is imperative if proper results are to be obtained. Preferably, this study should be made by the patient's family physician.

First comes a detailed history, including the family record and the past history as well as the present illness of the patient. Next comes a careful physical examination, and routine laboratory and roentgen studies. Although these studies can be made by any well-trained physician, provided that he has the interest and time, ideally they should be done by the patient's family doctor. This physician can be a general practitioner, an internist, a part-time specialist, or any other physician who is interested in the patient as an individual. The family doctor who has cared for a patient over a period of years and has gained his confidence and that of his family is the ideal medical attendant. The passing of the "old family doctor" has been deplored by the public as well as many in the profession. Obviously that individual will not return, just as the "old fashioned patient" has also passed from the picture. Yet, regardless of scientific advances, the need for the family physician will always remain.

The profession has taken many steps toward restoring the family physician to his proper position. The organization of a Section on General Practice by the AMA and the establishment of the American Academy of General Practice at the national and state levels, with their excellent clinical programs and their high standards for continued membership, have advanced the knowledge of the family physician. The quality of medical care offered by the almost 500 members of the Academy in Iowa is commendable, and all general practitioners should be members of this worthwhile organization.

At the undergraduate level, the preceptor system already functioning in many states is introducing the student to general medicine and is helping him to learn the art of medicine more effectively than it can be learned in a university or other charity hospital. This brief introduction to general practice also helps to remove from the

Dr. Downing delivered this address at the Annual Meeting of the Iowa State Medical Society, April 25, 1956.

student's mind the fear that he is inadequately trained for the practice of general medicine. Every physician, when called upon, should give this preceptor program his wholehearted support.

The British have long had a system of medicine wherein the general practitioner limits his work to office and house calls, and the specialist limits his practice to hospital cases. Recent reports from England indicate that the general practitioner is no longer satisfied with that system. If the large number of American doctors known as general practitioners were to have the hospital door closed to them when a patient of theirs was hospitalized for a serious illness, or if they were to be excluded from the operating room if the case were surgical, they would not progress as they should, either in medical knowledge or in patient interest. How well informed would a family physician be if his observation of acute illnesses such as appendicitis or cholecystitis, or chronic disease such as cancer, diabetes and heart disease were restricted to his care of the case before and after hospitalization?

GENERAL PRACTICE IS UNDERSTAFFED

Many factors have brought about the increase in medical specialization. In 1940, there were 16,000 specialists in the United States, and by 1953 the number had increased to 52,000, which is one-third of all practicing physicians in the country. This increase has occurred despite the statement made by the AMA Commission on the Cost of Medical care in 1932, that not more than 18 per cent of the physicians in the country need to be specialists. A recent study by the Bureau of Economics of the AMA shows that of all physicians graduating between 1930 and 1950, approximately 35 per cent are in general practice. That figure applies also to Iowa graduates. Among the factors which have caused this increase in specialization are:

(1) The opinion of the graduating student that he knows too little to undertake medical practice with graduate training.

(2) The fact that undergraduates receive all of their training from specialists, who tend to emphasize unimportant details rather than basic facts.

(3) The esteem in which the public holds specialists.

(4) The preference in rank which has been shown the specialist by the Armed Forces Medical Corps in World War II and since.

(5) The impression that the specialist has an economic advantage.

Little emphasis has been given to two facts, namely, that each year of specialty training costs the student an estimated $15,000 in expense and loss of income, and that present income taxes will take a sizable portion of the specialist's income, once he does begin practicing his specialty.

Organized Medicine, through both its state and national groups, should undertake a campaign of education designed to inform the public of the importance of the family doctor and to explain how the public can obtain the best care that medical science has to offer. Each individual or family should first select a family physician—one in whom the individual has confidence and one who can be sure to have an interest in his health and welfare. Family doctors such as this can be found even in cities, if laymen will consult the county medical society or the academy of general practice. In all medical matters, the family physician should be consulted first, and in the majority of illnesses, he can provide adequate medical care. If the complex nature of the illness requires specialized study, the family doctor can, in addition, render another important service. He can advise the patient as to the proper specialty field in which additional investigation should be made and also help select a specialist whose ability as well as reliability makes him the best consultant available.

If the family physician then serves with the specialist as a part of a medical team, assists with the care of the patient in the hospital, discusses with the patient and his family what diagnostic or operative procedures are necessary, fits into the operating team in surgical cases according to his ability and the need for assistants, the ideal medical care system will have been utilized. Under this group medical-care plan, far fewer operative procedures will be performed by poorly trained doctors. With this plan, too, the well-informed family physician will retain his interest in the case and will be capable of providing proper medical care when the patient returns home.

This medical team care will result in a well-knit and efficient medical group in each community, one capable of providing the best in medical service. Then no split between family doctor and specialist will arise to plague the patient and the doctors. Each doctor will have an important part to play, and financial gain will be adequate for all. As one who has observed the excellent medical care provided by the younger general practitioners, I disagree with the medical educators who state that the medical graduate with one year of rotating internship and probably two years of medical experience in the Armed Services is not qualified to practice general medicine. A general-practice residency is, of course, excellent; but too often, residency training leads doctors into specialization. If these new graduates become a part of the medical teams in their communities, utilize the services of more experienced physicians as consultants and are permitted to work with the specialist in the care of the patient, the best in medical care will be provided.

In medical organizations both at the state and national level, recent years have shown a restoration of general practitioners to their proper place as officers, delegates and committee members, and

(Continued on page 277)



Complications of the First Stage of Labor

And Their Management

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THE PURPOSE OF THIS presentation will be to enumerate the commoner complications that may confront us during the first stage of labor and to discuss the practical measures that will best protect the mother and her baby against each of them.

The first stage of labor, the stage of dilatation, begins with the onset of true labor pains and ends with the complete dilatation of the cervix. It has long been my contention that this stage is the more important part of labor. We stress the importance of good prenatal care and the skill and judgment that we need in conducting the second stage, the phase of actual delivery. But have we placed sufficient or even equal emphasis upon the longer, more tedious and more painful part of labor, the stage of dilatation? The answer is "No."

For a good many years, I have taught interns and residents that it is far more important that a competent obstetrician should manage the first stage of labor than that he should do the actual delivery. Once the first stage has been completed and the presenting part has descended to the pelvic floor, anyone who has actually delivered 50 or 100 patients should have acquired sufficient technic and skill to complete the vast majority of second-stage labors safely. But I do not feel that the same holds true for the management of the first stage of labor, for it is then that most of the varied complications become evident. Their recognition and correction, insofar as is possible, require infinitely more skill and judgment, and consequently, greater experience in order to safeguard the mother and, particularly, the baby. The existing conditions preclude the possibility of rapid vaginal delivery, for dilatation is incomplete. The existence of the same complications in the second stage of labor may be an indication for interference and rapid delivery, but such is not the case in the first one.

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BANDL'S OR RETRACTION RING

A Bandl's or retraction ring may serve as a starting point for a discussion of the complications. This condition we see occasionally as we make periodic examinations of the abdomens of patients in labor, and it is visible as a depression or a transverse groove or constriction, usually slightly below or at the level of the umbilicus. It is not always easy to distinguish between a retraction ring and an overdistended urinary bladder, both of which produce a tumor-like firmness and tenderness to palpation over the lower abdomen. Immediate catheterization, a simple measure, will serve to differentiate the two conditions, and in case of a distended bladder, the tumor convexity and tenderness will disappear between the symphysis and the umbilicus. On the other hand, if the mass and constriction persist, we are dealing with a pathologic retraction ring which is indicative of obstructed labor, with a thinning out and pulling up of the lower uterine segment to a point where manual manipulation or a strong uterine contraction may result in rupture of this segment.

A sterile vaginal examination should be done immediately, and a faulty presentation or, in some instances, an unsuspected feto-pelvic disproportion will be discovered. One must conduct this examination with the utmost caution, taking care

not to exert any upward pressure or attempt to dislodge the fetus or improve a faulty presentation, for therein lies the cause of that most catastrophic of all maternal complications, ruptured uterus.

Once the cause has been determined, the treatment will depend upon the type of the obstruction, the condition of the mother and the condition of the child. Under no circumstances should any corrective measures be undertaken until the patient has been deeply anesthetized, until the uterus is completely relaxed and until rhythmic contractions have ceased. Occasionally, if minimal manual manipulation can effect a correction, it can be condoned, but in the vast majority of instances, a low cervical cesarean section is the procedure of choice.

PRIMARY INERTIA

Uterine inertia! Who of us has not been driven to distraction with a patient who supposedly has been in labor for many hours and has experienced as much or more pain and suffering than does a patient in normal labor, yet inexplicably has failed to progress? This condition we refer to as primary inertia.

Before instituting any type of therapy, we must first establish beyond any doubt that the patient is actually in labor, for any efforts we might make to stimulate false labor will either fail completely or will result in desultory uterine contractions that are most difficult to deal with. Therefore, in any suspected case of uterine inertia, the criteria for true labor must be fulfilled before any therapy is instituted. Those criteria are (1) evidence of progressive effacement and dilatation over an eight hour period, regardless of the poor quality of the contractions; (2) easy indentability of the uterine wall at the height of each contraction; and (3) failure of the fetal head to rotate or descend during this period of uterine contractions.

First, the obstetrician should keep calm and should reassure his patient. Perhaps he should order a warm enema or two and should encourage the woman to walk about for a while, in the hope that the presentating part may settle against the lower uterine segment and stimulate contractions.

A more active measure consists of artificially rupturing the membranes, provided that the cervix shows some effacement and 4 or 5 cm. of dilatation. It is surprising how often this procedure is followed within a few hours by good, active labor pains and by a normal progress of labor.

All of these measures fail in a certain few instances, and the inertia is so refractory that the question arises whether or not we are justified in using more heroic measures—i.e., oxytocics such as pituitary extract—to initiate effectual uterine contractions. A few years ago, we would have named these drugs only to condemn them, for we all have vivid memories of the countless tragedies that resulted from the injudicious intramuscular injection of those powerful agents. Nowadays, however, we have learned to administer pituitary extract in a very weak solution (1 cc. of pitocin in 1,000 cc. of 5 per cent glucose) by means of an intravenous drip regulated to deliver approximately 30 drops per minute.

To my mind, this is a perfectly valid procedure in selected cases when one has ruled out mechanical obstruction to normal labor, and in cases of obvious over-distention of the uterus, as in multiple pregnancy. But let me emphasize that when this therapy has been started, *the patient should never be left alone for a moment so long as the solution is dripping!* The uterine contractions must be observed continually, and the fetal heart rate must be counted and recorded every five or ten minutes. If the duration of contraction exceeds two minutes, or if the fetal heart rate is either less than 100 beats per minute or is irregular, the drip must be discontinued immediately and the patient must be given inhalations of oxygen to combat any anoxia that may have developed in the baby as the result of too severe and prolonged uterine contractions.

SECONDARY INERTIA

There is another form of inertia called secondary uterine inertia. The patient has made a normal beginning and has had steady progress in the first part of labor for some hours. Then, apparently, labor comes to a standstill, and there are no contractions or further progress. This type of difficulty is due to exhaustion and requires rest. A patient of this sort should be given ¼ grain of morphine promptly and 1,000 cc. of 10 per cent intravenous glucose to restore her fluid balance. Usually after three or four hours of much-needed sleep and rest, the contractions will again become established, and labor will proceed uneventfully.

OCCIPITOPOSTERIOR PRESENTATIONS

Occipitoposterior positions are a common experience for all of us, and are variously estimated to occur in 8 to 10 per cent of all labors. But only a fraction of them result in major difficulties. When the diagnosis of occipitoposterior position has been made, we must assume that labor will be longer than usual and that the patient's pain and discomfort will be greater. The patient usually describes her sensation as a severe boring pain, low in the back in the region of the sacrum. Since the labor is likely to be protracted and the pain unusually severe, our management must be directed toward the prevention of exhaustion, as evidenced by dehydration, increasing pulse rate, diminished frequency of uterine contractions and uncooperativeness resulting from the tormenting back pain. Enough sedation to give the patient relief is therefore indicated. One that we find espe-

cially effective consists of 100 mg. of Demerol combined with 1/100 grain of scopolamine given intramuscularly as an initial dose. When necessary, the Demerol is repeated at three-hour intervals without scopolamine. If, after 4 to 6 hours of tedious labor, there is evidence of dehydration or if the patient is known to have had an inadequate intake of fluids by mouth, an intravenous injection of 1,000 cc. of 5 per cent glucose in saline should promptly be set running to improve her fluid electrolyte balance.

If at any time during this period of labor the patient has accomplished 4 cm. of dilatation and 50 per cent effacement of the cervix, the membranes should be ruptured. This procedure has the effect of increasing the frequency and intensity of the uterine contractions, as well as of permitting the presenting part to descend against the cervix. Thus the vertex meets the resistance necessary to improve flexion, which in turn encourages spontaneous rotation and, consequently, progress of labor.

In an occasional occipitoposterior, in spite of good labor pains, rotation fails to occur, progress becomes arrested and there is definite evidence of fetal distress, with slow, irregular fetal heart sounds and perhaps a thick, meconium-stained vaginal discharge. Remember that it is the *first* stage of labor that I am discussing, when the cervix is no more than partially dilated and the presenting part is well above the pelvic floor. Under such circumstances, I think that a prompt low-cervical cesarean section is far safer for the mother and baby than is the application of a hazardous vaginal accouchement force. With the improved operative technic, blood banks and antibiotics that we have today, cesarean section is no longer considered an undue risk to the mother, and at the same time, it affords the baby a better chance of survival in this particular complication.

BREECH PRESENTATIONS

At the onset of labor, about 3.5 to 4 per cent of all cases present as the breech, and since the fetal mortality is nearly three times as high in such cases as in vertex presentations, it is evident that a more critical analysis of our management of this common complication is indicated if we are to improve our results.

First and foremost in breech presentations, it is desirable for us to keep the membranes intact throughout the first stage of labor, until dilatation and effacement are complete or nearly so. Primarily, the irregularity of the breech and the softness of its tissues make it a poor dilating surface without the hydrostatic pressure of the intact amniotic sac. Therefore, any manipulation of the abdomen or examination of the pelvis, whether vaginal or rectal, must be done with the utmost gentleness and caution. If at any time the membranes are ruptured inadvertently or spontaneously during this first stage, it is extremely important that one should do an immediate sterile vaginal examination to determine the possibility of a prolapsed umbilical cord—an extremely serious accident which breech presentation facilitates and which will be dealt with as a separate complication later in this discussion.

In full-term breech presentation, first-stage labor is apt to be longer and more painful than it otherwise would be. Thus, it is usually permissible for the obstetrician to use stronger sedation and to use it more frequently. An average dose might consist of 100 mg. of Demerol combined with 1/100 grain of scopolamine. Depending upon the severity of the pains and the patient's reactions to the drugs, it is consistent with safety to administer subsequent doses of the same or smaller amounts at 1½ to 3 hour intervals, as the needs of the patient require.

There may be an occasional case that presents as a full breech or footling and in which the lower fetal extremities become impacted at the pelvic inlet, thus arresting progress. After an hour or two, in such cases, nothing is to be gained by further delay. This is one instance in breech presentation with incomplete dilatation and effacement where we are justified in carefully rupturing the membranes and, during the absence of uterine contraction, lifting the breech upward enough to dislodge the impacted fetal extremities and permit their being brought down through the cervix into the vaginal canal one at a time. Because this procedure involves some risk, one should manipulate only just enough to release the extremities from their impingement. Then labor should be permitted to continue in a normal manner for completion of the first stage.

PROLAPSED CORD

Now a few words about prolapsed cord, one of the most serious and devastating complications that can happen to the baby during the first stage of labor. In the past, we were taught to place the patient in the knee-chest position, in an exaggerated Trendelenberg position or in the elevated Sims position, and simply to replace the prolapsed cord above the presenting part. Then, we were told, perhaps we should place a Voorhees bag inside the partially dilated cervix to hold it there.

Those procedures sound very simple and easy, but in our hands the anatomical obstacles and trauma that confronted us whenever we have attempted them in a woman in active labor have been so difficult and time-consuming that the cord has stopped pulsating long before we could complete them. It is my opinion that this technic should be relegated to the category of "meddlesome obstetrics," and that a more practical approach should be sought.

Prolapse of the cord is a complication that will not permit long deliberation and watchful waiting

if the baby is to be delivered alive. Decisions must be prompt, and actions must be decisive. When the accident has been discovered early, when the fetal heart tones are unaffected and when the cord pulsations are strong and regular, there should not be the slightest hesitation or delay in this type of case. A prompt injection of spinal anesthesia followed by a rapid emergency cesarean section will give a high percentage of living babies with no undue risk to the mothers. If, on the other hand, the prolapsed cord has been discovered late, if the fetal heart tones are extremely slow and irregular, and if the cord pulsations are feeble or if the fetal heart tones are absent and the cord is pulseless, nothing will be gained by emergency measures, and one must allow labor to progress in a normal manner and accept the inevitable outcome of a dead-born baby.

PREMATURE LABOR

No discussion of the complications of the first stage of labor would be complete without some mention of premature labor, which occurs when the cervix is unripe and is unusually resistant to effacement and dilatation. Consequently, labor may be long and painful. If we yield to the mother's pleas for relief and administer sedation, we jeopardize the premature infant's chances of survival, for the resultant narcosis will delay or depress respirations if the infant is born before the effects of the drug have worn off. For that reason, in cases where the baby is estimated to be three, four or more weeks premature, one should avoid the use of morphine, scopolamine, barbiturates and general anesthetics. Some people—and I am one of them—think that minimal doses of Demerol (50 mg., repeated sparingly when necessary) may be given, and that such medication is usually sufficient to give the patient moderate relief without producing an effect upon the respiratory center of the infant that will be dangerous at the time of delivery. When the first stage has progressed sufficiently and when the patient has definite need for relief from hard labor pains, conduction anesthesia—either continuous, caudal or low-spinal—is the method of choice and is equally safe for the mother and the baby.

CERVICAL RIGIDITY

There is one more complication of the first stage of labor that deserves discussion, a condition that is more common in elderly primaparae than in other obstetric patients. It may be congenital or may be the result of a fibrotic change or cicatrization following an inflammatory lesion or conization of the cervix. Ordinarily, this stenosis will yield following protracted labor, but in a certain few instances, the cervical dystocia may be so severe and unyielding that fetal distress becomes evident, or there is such thinning and retraction of the lower uterine segment as to predispose to uterine rupture. Under these circumstances, we have but one choice. A cesarean section should be performed promptly.

CONCLUSION

In conclusion, may I state that in the last 20 years, through the efforts of the Maternal Mortality Commission in particular and of the medical profession in general, our national maternal mortality rate has been reduced to an unbelievably low figure. I happen to know that Iowa has earned and enjoys one of the lowest and most enviable records of that sort, and the obstetricians of this state may well be proud of it. Yet it is significant that nowhere has there been a comparable reduction in the *fetal* mortality rate. It is for that reason that my remarks have stressed the management of complications of the first stage of labor.

There is reason for believing that a considerable number of fetal deaths are directly attributable to the complications that I have discussed, and that many of them are preventable under the proper circumstances. Therefore it is necessary first of all for the doctor to be present and attending the patient from the very onset of labor if he is to recognize and manage these abnormalities. He can't be home in bed or at his office with a telephone at his side, regardless of how well-trained and competent his obstetric nurse may be. For him to put his responsibility upon her shoulders is unfair both to her and to his patient. The nurse may be able to recognize most of the complications of which I have been speaking, but she is neither trained nor licensed to treat them.

We, as physicians, must assume the responsibility, for it is ours. And we must educate the medical profession and the laity to the fact that management of the first stage of labor is just as important as management of the second stage, if not more so. It is during this first stage that we have our greatest single opportunity to recognize and manage these complications, and we can avail ourselves of it merely by being willing to spend a little more of our time. The reward will be a much higher fetal salvage rate—one that will more nearly approach our steadily improving maternal survival statistics.

DROP IN OB. & GYNEC. SPECIALIZATION

The American Gynecological Society is sponsoring a study to determine why the field of obstetrics and gynecology is failing to attract its share of talented medical college graduates. The Josiah Macy Foundation will finance the investigation.

A survey of Northwestern University Medical School graduates has shown that between 1939 and 1943, only four men who had ranked in the top 10 per cent of their graduating classes chose that specialty. Internal medicine and surgery are thought to have been getting more than their shares.

Late Results in
The Surgical Treatment of Duodenal Ulcer

Report of 77 Cases*

JOSEPH B. PRIESTLEY, A.B., M.S. *(Surg.)*, M.D.

DES MOINES

THERE ARE FEW CONDITIONS for which a larger variety of surgical procedures have been advocated than for duodenal ulcer. Many of the operations suggested constitute modifications of the Billroth I and Billroth II technics. Removal of greater or lesser portions of the lesser curvature and the removal of portions of the greater curvature and combinations of these in which the duodenum is attached to a portion of the stomach have been advocated. On the other hand, modifications of the Billroth II procedure where, likewise, portions of the greater or lesser curvature of the stomach are removed or where a portion of the stomach is closed after being resected before the anastomosis is completed have many followers. Section of the vagus nerves with and without gastroenterostomy or gastric resection has been championed. Pyloroplasty has fallen from its once somewhat lofty position.

It is virtually certain that no one operation represents the best procedure for all ulcers. Likewise, variables in a given operation, such as in the amount of stomach or the portion of the stomach removed, may considerably alter the results obtained by different surgeons.

For some time, it has been my feeling that the medical profession as a whole is unaware of what appears to me to be the excellent results obtainable with the properly performed Billroth II operation in selected patients with duodenal ulcer. The excellence of those results depends upon proper selection of patients and upon the operation performed. I have thought it would be interesting to review a group of patients after sufficient postoperative time had elapsed to determine what we might expect from surgery and to evaluate the Billroth II type of procedure which had been used in the series.

I therefore decided to review a group of patients upon whom only the Billroth II operation was performed for duodenal ulcer between 1946 and 1954. Patients who underwent other types of gastric operations for duodenal ulcer have been excluded from this series. Since about the same number underwent surgery each year, it seemed, in the main, that a reasonable time had elapsed so that the later results might be evaluated. Questionnaires sent each patient furnished the statistical data that are presented in this paper.

* Presented to the Des Moines Library Club, March, 1955.

The operation routinely performed in these patients was of the Billroth II type, the entire opening in the stomach being used for the jejunal anastomosis. The proximal jejunum was attached at the greater curvature of the stomach. Some of these anastomoses were posterior, but in the main they were anterior. The omentum was removed in the majority of the anterior anastomoses. Catgut was used throughout, two layers being employed anteriorly and three posteriorly. I prefer to perform the anterior anastomosis since in that procedure I find it comparatively easy to suspend the jejunal loop adequately, and so to avoid the possibility of any major or even minor degree of obstruction at the anastomotic site. This seems important, for when there is no obstruction, these patients seldom vomit after the effect of the anesthetic has worn off, seldom require gastric tubes and do not develop duodenal fistulae.

TABLE 1

GASTRIC RESECTION FOR DUODENAL ULCER, 1946-1954

Total number	77
Hospital deaths	2
Questionnaire not answered	7
Operated since questionnaires sent	5
Died 3 yrs. P.O. from perforated carcinoma of the cecum	1
Questionnaires returned	62

The resection was often performed at the pylorus, with no attempt being made to remove the duodenal ulcer, except in the case of acute bleeding and a few other extraordinary lesions. The duodenal stump was closed with catgut, and in no instance has a biliary fistula developed. Intraperitoneal drainage was employed but rarely. The amount of stomach removed at the time of resection was not accurately determined except during the past few years. It has long been my feeling that some of the poor functional results from surgery for duodenal ulcer result from excessive removal of stomach. I see no reason for applying an operation designed to avoid gastrojejunal ulcer to every individual being operated upon for duodenal ulcer, since the incidence of gastrojejunal ulcer is low, and I feel that the incidence of poor functional result is greatly enhanced where this is done. With certain very definite exceptions, everything else being equal, 60 to 65 per cent of the stomach should be removed.

The vagus nerve was not disturbed in any of

these cases. Enteroanastomosis between the two loops of jejunum was not carried out in any instance. Gastric suction was seldom employed postoperatively, and never as a routine procedure.

As Table 1 indicates, 77 patients comprise the series. Of them, only 7 failed to answer the questionnaire. Of the two hospital deaths, one resulted from pulmonary embolism. We thought the other was caused principally by atelectasis. The abdomen in neither case showed any abnormal findings. Table 2 shows the ages of these patients.

TABLE 2

Age	*No. of Patients*
70-80 Yrs.	5
60-69 Yrs.	11
50-59 Yrs.	10
40-49 Yrs.	20
30-39 Yrs.	13
20-29 Yrs.	3
Under 20 Yrs.	0

TABLE 3

Duration of Symptoms	*No. Cases*
40 Yrs.	1
30-49	6
20-29	11
10-19	18
5- 9	12
1- 4	11
Under 1 Yr.	3

TABLE 4

	Yes	*No*
Bleed before operation	33	29
Bleed since operation	3	59
Subsequent stomach operations	2	
Gastrojejunal perf. ulcer	1	
Vagotomy	1	

The highest incidence occurred during the fifth decade. The third, sixth and seventh decades were about equally represented, each furnishing about half as many cases as did the fifth. Table 3 shows the duration of symptoms. The patients who underwent operation with a short history generally suffered compelling complications. It is interesting to note that 36 of these patients—more than half—had had symptoms for ten years or more. Many of them later wished that they had had their operations much earlier. Table 4 indicates the incidence of hemorrhage before and after operation. It was interesting to observe that over half of the patients bled at some time before operation.

On the questionnaire, the patients were asked, "Did operation on your stomach relieve your stomach trouble 100%, 90%, 75%, 50%, 20%, 0%?" Table 5 indicates the responses to this question. All but 3 had 75 per cent or more relief; 53 had 90 per cent or more relief; and 38 had 100 per cent relief. There seemed no infallible technic for eliciting information from patients about the dumping syndrome. But it seems that dumping could have been no more than minimal, in view of the high incidence of complete or nearly complete relief from gastric distress. In order to secure additional significant information about the postoperative courses of the nine patients who had reported less than 90 to 100 per cent relief from their symptoms, additional questions were asked of them, and Table 6 summarizes the data so obtained.

It has been my feeling that in addition to the common indications for surgery in duodenal ulcer, such as obstruction, hemorrhage and perforation, another one, impairment of work, should be added to the group. Consequently, the questionnaire asked patients whether the ulcer had interferred with their occupations before surgery, and whether it did so afterward. Table 7 is a summation of the answers received to that query. Eighty-two per cent stated that their ulcer had impaired their work before operation, but 88.7 per cent stated that their work was unimpaired afterward. Two did not answer the question, one stated that he had gas and another said he could not stand vibration.

TABLE 5

Percentage of Relief as Stated by Pt.	
38 Cases	100%
15 "	90%
6 "	75%
2 "	50%
1 "	0%

TABLE 6

GASTRIC RESECTION FOR DUODENAL ULCER

Patients Reported 75% or Less Relief		
1. M. W.	50%	Resection 1949. Pneumonectomy for Ca. 1951. General condition very poor in 1954.
2. O. B.	75%	Nine major operations before gastric resection in 1952. Operated upon once for obstruction since questionnaire.
3. R. J.	75%	Resection for bleeding ulcer 1952 when four months pregnant. Somewhat nervous.
4. H. O.	75%	No other disease known.
5. M. T.	75%	Senility. Age 76. Operated because of acute hemorrhage.
6. E. W.	75%	Patient hasn't replied to inquiry concerning other disease.
7. H. S.	75%	Reoperated twice following resection, within 3 or 4 days, for bleeding from anastomosis.
8. H. W.	50%	Required vagotomy 1 year later. Much improved afterward.
9. O. M.	0%	Unable to see him, but got in touch with his doctor. No subsequent operation.

TABLE 7

IMPAIRMENT OF WORK

Before Operation		*After Operation*	
Yes	51	No	55
Some	2	Yes (includes M. T., age 76)	2
Very little	1	Not answered	2
No	8	Works most of time	1
		Can't tolerate vibration	1
		Has gas	1

I should judge that the true figure would range well over 90 per cent.

It had long been my feeling that one should strive to remove no more than 60 to 65 per cent of the stomach in the average case, though individual circumstances might indicate a more extensive resection. When more is removed, it seems to me, there is a progressive deterioration of the results, i.e., a great increase in the dumping syndrome, together with a higher incidence of postoperative anemia and weight loss. In Table 8, I have compiled the data that I procured through the questions dealing with anemia and nutrition before and after the operation. It will be observed that in 66 per cent of patients, the weight remained unchanged or increased postoperatively. An absence of anemia was reported by 87 per cent of patients. Conceivably that figure is somewhat erroneous, since it represents the patients' opinions, but most all of them have seen their physicians at intervals postoperatively, and I feel sure they would have been informed about and treated for anemia if any had existed.

The patients were queried as to whether they were taking medicine for their stomachs at the present time. Table 9 indicates that 87 per cent had taken no medicine at any time since surgery. Six per cent took some once in a while. Only two patients in the group were taking medicine regularly for their stomachs.

Table 10, compiled from patients' answers concerning their present diet, shows that 88 per cent observe no diet; two patients are on a diet; and the remainder are partially restricted.

Because the records in some instances were perhaps not quite so complete as they might have been, I do not feel that I can make an accurate composite of the postoperative complications. It was my impression, however, that the length of hospital stay, as illustrated in Table 11, would indicate that few of the patients remained in the hospital more than three weeks after their operations, and that by far the majority of them were out within two weeks.

Since, after all, it is the patient who is satisfied or not satisfied with the surgery performed, and since all of the patients discussed in this paper were private ones, the general comments that they wrote on their questionnaires deserve being reported. Table 12 contains some representative ones. Of those answering this question, 95 per cent stated that if they had it to do over again, they would undergo the operation.

TABLE 8

Anemic Since Operation			*Weight Since Operation*		
No	54	87%	Same	21	
Yes	7	13%	Gain	18	
Do not know	1				—
					66%
			Loss	23	33%
Mortality in 77 cases					2.6%

TABLE 9

Do You Take Medicine for Stomach?	*Number of Patients*
Occasional Amphogel	1
Occasional Trisogel	1
Few weeks, spring and fall	1
Once in a while	1
Yes	4
No	54

TABLE 10

Are You on a Diet Now?	*Number of Patients*
A few restricted foods	1
Modified Diet	1
No fried foods	1
Liberal ulcer diet	1
Few things can't eat	1
Yes	2
No	55

TABLE 11

Length of Hospital Stay	
1 Mo. or more	4
3-4 Wks.	2
2-3 Wks.	18
Under 2 Wks.	38

TABLE 12

Would You Repeat the Operation?	
Yes	58
No	2
Would repeat Vagotomy	1
Not answered	1

CONCLUSION

I have presented the late results in a group of patients who underwent the Billroth II operation for duodenal ulcer. In properly selected patients, the results appear encouraging.

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Radiologic Diagnosis of Gastrointestinal Hemorrhage

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HEMORRHAGE FROM the gastrointestinal tract, except in systemic disease such as purpura, means that there are one or more bleeding lesions in the esophagus, stomach, small bowel or colon. A good history and a careful roentgenologic examination should locate the site of the hemorrhage and help to determine the nature of the lesion. A history of vomiting blood localizes the source in the upper intestinal tract. On the other hand, tarry stools may indicate bleeding from anywhere along the tract; but the passing of bright red blood from the rectum usually means a lesion located to the left side of the colon. The slow loss of blood, as evidenced by occult blood in the stools may be from anywhere along the gastrointestinal tract. It is important to remember that this is information only about the location of the lesion. It does not show its nature, since any lesion may gush blood or bleed slowly.

When is the best time to examine a patient with a severe hemorrhage? In our experience, the x-ray examination does not increase the mortality, and if the hemorrhage does not show signs of abatement on conservative management, the patient should be examined while bleeding is taking place. The blood may tend to obscure the lesion, but does not altogether prevent diagnosis.

The patient is best examined fluoroscopically in the upright, prone and Trendelenberg positions, first after ingesting small amounts of barium to permit visualization of the mucosa, and then after ingesting larger volumes that will distend the organs. At times, after the barium swallow, the esophagus may best be visualized when the patient is in the Trendelenberg position. For the patient who cannot stand, one must do special positioning in order to visualize the stomach without palpation. Small amounts of barium injected through a tube may permit a successful examination of the small bowel. All fluoroscopic examinations should be checked by means of spot and grid roentgenograms of the entire abdomen.

The accuracy of the diagnosis can be greatly augmented by esophagoscopy and gastroscopy, and we recommend those procedures in cases of hemorrhage if other methods fail. They may localize sites of bleeding that fluoroscopy has failed to reveal, and they may help in differentiating the type of lesion present.

The important bleeding lesions of the esophagus are varices, ulcers and malignancies. The varices usually involve the lower one-third, but they may also involve most all of the rest of the esophagus (Figure 1). Fluoroscopy and roentgenograms show them as small defects in the margins of the esophagus and as distortions of the normal parallel mucosal folds of the esophagus. Because these vessels may not distend during bleeding, they may be missed. Here esophagoscopic examination is helpful. Peptic ulcer of the esophagus is more common than most people realize, and it is often associated with esophagitis or with diaphragmatic hernia (Figure 2). The malignant tumors may occur anywhere in the esophagus, but about one-half of them arise in the lower one-third (Figure 3). A carcinoma of the fundus of the stomach may invade the lower esophagus and resemble a primary tumor. Benign tumors, tuberculosis and lues, though extremely rare, usually resemble the above lesions.

In the stomach, the most common condition causing bleeding is gastritis. This may be either atrophic or hypertrophic in type, and it may involve either the whole stomach or only a small portion of the antrum. It is frequently associated with carcinoma of the stomach and duodenum. Roentgenologically, it may appear as an inconstant narrowing, through which peristaltic waves pass. The mucosa is smooth or hypertrophied. One may have difficulty in differentiating this deformity from an early malignancy (Figure 4). Gastric ulcer accounts for the next largest group of patients with gastric bleeding. About 75 per cent of these lesions occur in the antrum of the stomach and appear as small craters which can be filled with barium. The rugae are drawn into craters, much as the spokes of a wheel converge at the hub. The most difficult ulcers to locate are those high on the posterior wall near the lesser curvature. We have seen two patients bleed to death from an ulcer which was just above an operative resection that had been performed in an attempt to eliminate the source of bleeding (Figure 5). In recent years, we have seen two benign ulcers on the greater curvature of the stomach, but most of the greater-curvature ulcers

Dr. Squire, clinical professor of radiology at the University of Illinois College of Medicine (Rush), and director of the Department of Radiology at Presbyterian Hospital, Chicago.

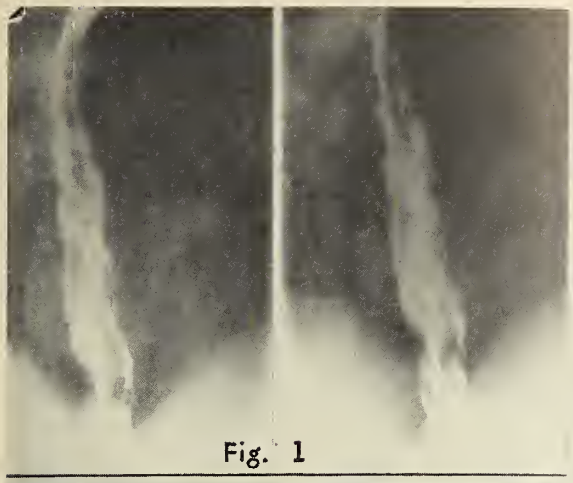


Fig. 1

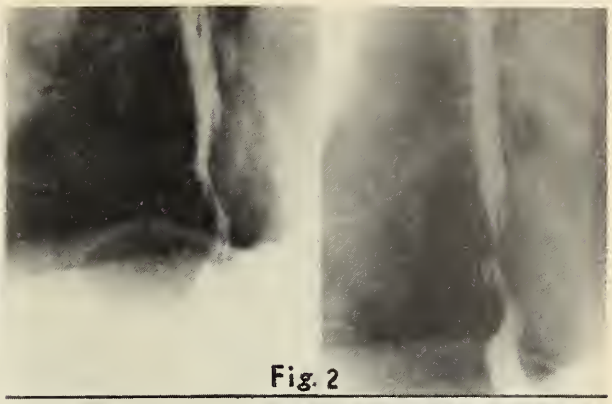


Fig. 2

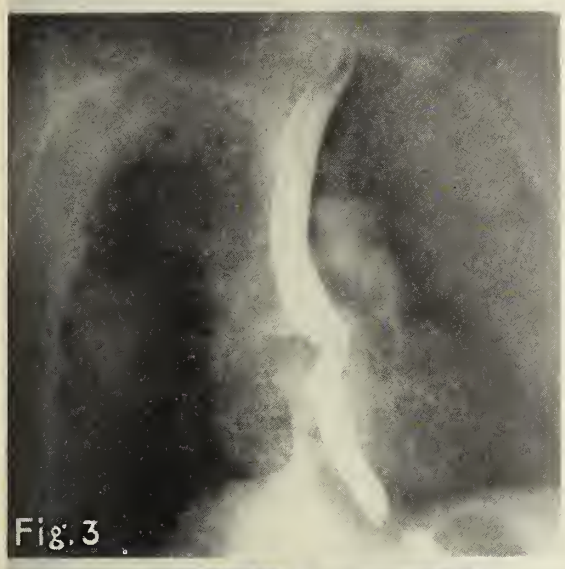


Fig. 3

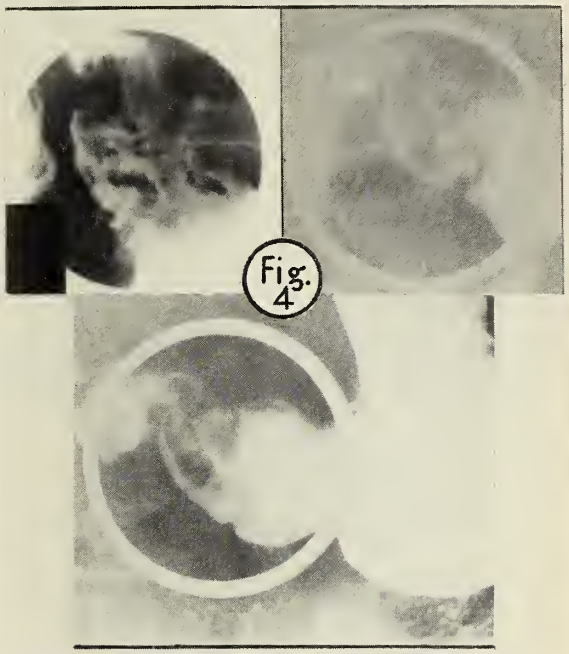


Fig. 4

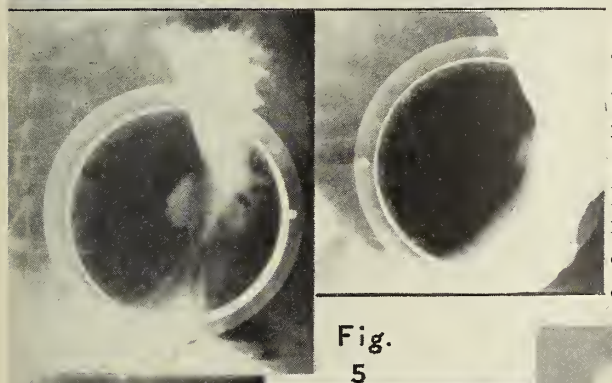
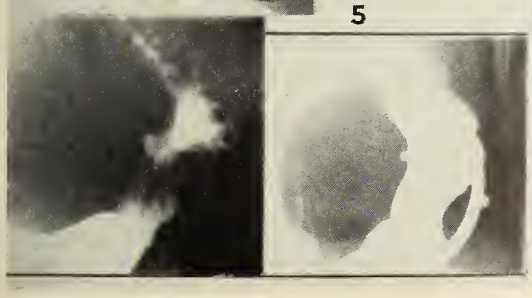


Fig. 5



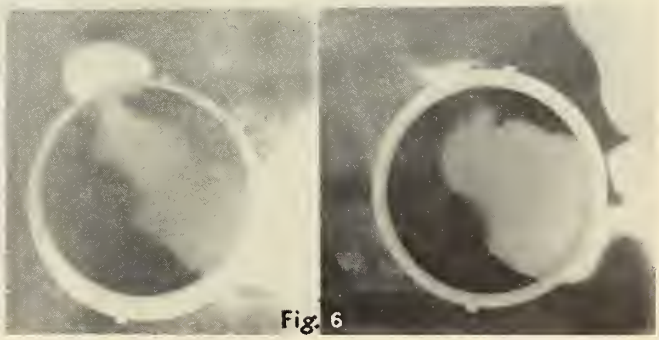


Fig. 6

Figure 1. Esophageal varices. Note the marked distortion of the normally parallel mucosal folds.

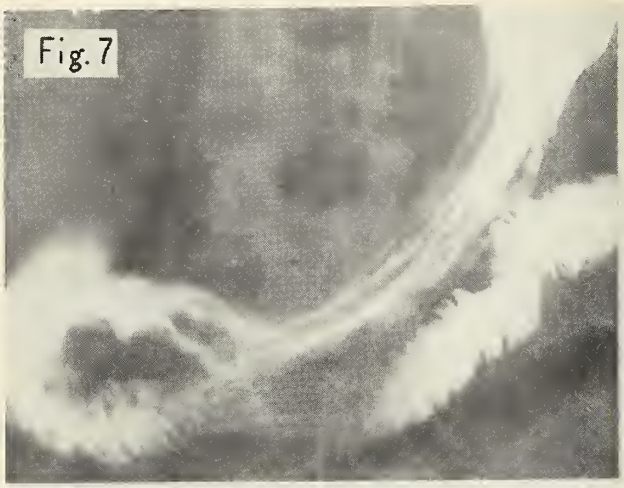
Figure 2. Esophageal ulcer crater with spastic deformity suggesting the filling defect of a malignancy.

Figure 3. Carcinoma of the esophagus. A small round tumor arising from one wall resembles a benign tumor, rather than the usual napkin-ring filling defect of carcinoma.

Figure 4. Hypertrophic gastritis. There is an irregular deformity of the antrum of the stomach showing hypertrophied mucosal folds. On fluoroscopy it is apparent that this is not a fixed defect, and peristaltic waves are seen to pass through this region.

Figure 5. Gastric ulcer. Note crater from lesser curvature of the stomach which becomes smaller on ulcer management.

Figure 6. Benign tumor. Small rounded lesion on greater curvature of stomach. Pancreatic rest.



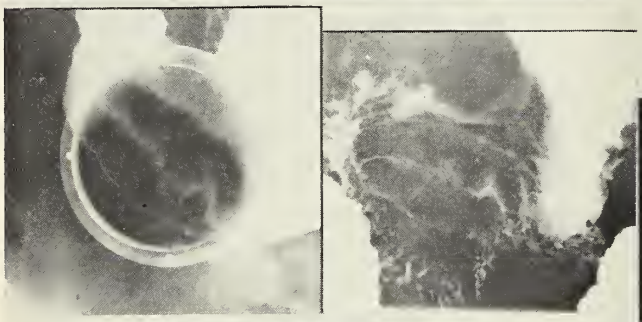
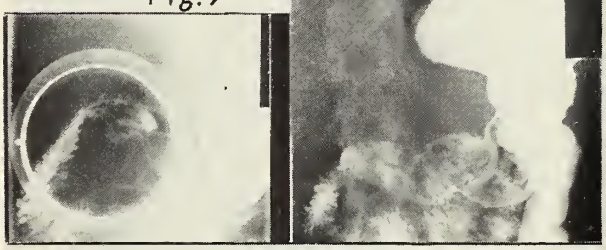
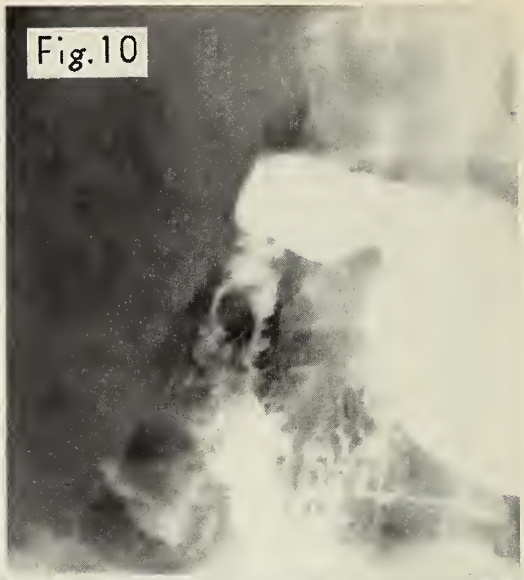


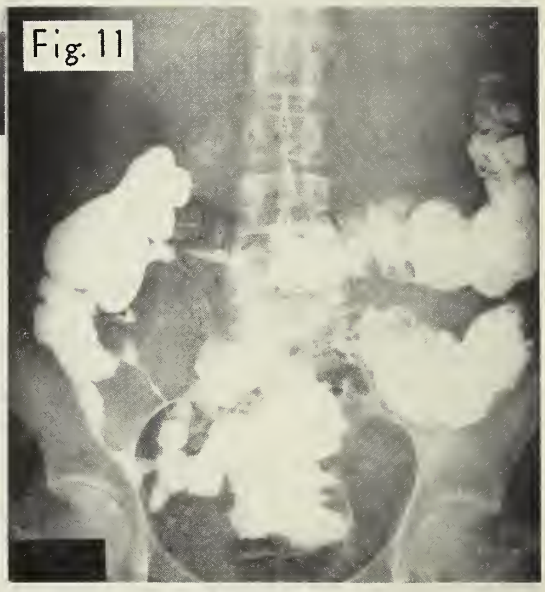
Fig. 8



Fig. 9







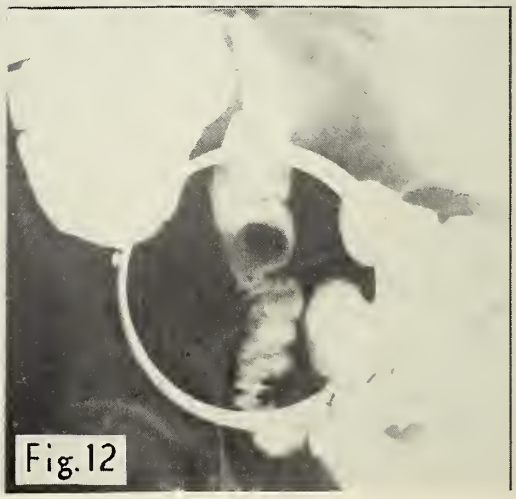


Figure 7. Carcinoma of the stomach. Small napkin-ring filling defect near pylorus.

Figure 8. Lymphoma of stomach. There are very large rigid folds of the mucosa. On fluoroscopy no peristalsis is visualized, and the gastric wall seems leathery on manipulation.

Figure 9. Duodenal ulcer. The ulcer crater is not visualized with the cap full of barium, but it is readily seen with pressure over the cap or with air and barium in the cap.

Figure 10. There is a defect in the second portion of the duodenum. Aberrant pancreas.

Figure 11. Terminal ileitis. There is marked narrowing and irregularity of the lumen of the terminal ileum.

Figure 12. Carcinoma of terminal ileum. Small round defect in lumen near the ileocecal valve.

will prove to be malignant. Diaphragmatic hernias and prolapsed antral mucosa may contain ulcers. Benign tumors of the stomach are not rare. They are circumscribed masses that may be either small or large, single or multiple, and they bleed from ulceration of the surface. The most common are polyps, leiomyomas, pancreatic rests and the rare tumors of neurogenic origin (Figure 6). Carcinoma of the stomach may occur as one of three types: (1) the carcinomatous ulcer which is difficult to differentiate from the benign ulcer by roentgenologic examination; (2) the fungating tumor, which can grow to involve a large part of the stomach; and (3) the linitis plastica type which is characterized by a smooth infiltration of the wall. These tumors may occur anywhere in the stomach, but more frequently in the lower one-half (Figure 7). Carcinoma of the pancreas may invade the stomach or duodenum and cause hemorrhage. The lymphoma group of tumors may involve the stomach and small bowel as single lesions, as multiple ones or as diffuse infiltrations (Figure 8). Varices of the stomach are frequently associated with varices of the esophagus and may rarely be seen as extensions from the esophagus.

Marginal ulcers, jejunal ulcers and recurrent tumors account for most of the hemorrhages following surgery. In the duodenum, peptic ulcer is by far the most frequent cause of bleeding. The majority are in the duodenal cap, but a definite number occur in the second portion of the duodenum. Ulcers may cause many secondary signs such as narrowing, shortening and spasm, but one makes the diagnosis by recognizing the crater filled with barium (Figure 9). Carcinomas of the duodenum most frequently arise at the ampulla of Vater, but may occur anywhere in the duodenum (Figure 10). Benign tumors are most frequently found in the second portion of the duodenum, and they are usually polyps, pancreatic rests or leiomyomas.

Diverticula of the esophagus, stomach and duodenum almost never are the source of bleeding, but a Meckel's diverticulum of the small bowel with a peptic ulceration is not uncommon.

Regional or terminal ileitis, and benign or malignant tumors of the small bowel should be looked for when other sources of bleeding are not demonstrated (Figures 11 and 12).

CONCLUSION

Thus, most diseases of the gastrointestinal tract may bleed. One must make a controlled fluoroscopic examination and many roentgenograms to find the bleeding points, and one must not assume that the first lesion he visualizes is the cause of the hemorrhage, for there frequently will be another source.

Joint Meeting of Doctors and Lawyers

The physicians and attorneys of Iowa are invited to meet together for an all-day series of workshops on medico-legal problems at the Fort Des Moines Hotel, in Des Moines, on May 25, 1956.

The program is to constitute the third and final day's activities of the State Bar Association's eighty-third annual meeting. A number of staff members from the AMA's Legal Department, some lawyers in private practice who have become nationally recognized for their knowledge of medical law, and several Iowa physicians and attorneys will participate.

The medico-legal workshops are to be in charge of Professor Fred Lewis, of the Drake University Law School, who has done much work in the past few years in the field of medical jurisprudence.

The headliner, among the lawyers who are to speak, is Mr. Irving Goldstein, a prominent member of the Chicago Bar. He is the author of TRIAL TECHNIQUE and MEDICAL TRIAL TECHNIQUE, and serves as a professorial lecturer at the Northwestern University Law School.

Mr. Goldstein will talk on the hypothetical question and the psychology of qualifying expert medical witnesses, and he will moderate a forum on medico-legal problems on which the speakers are to include Drs. Everett M. George and Paul T. Cash, of Des Moines.

Also appearing on the workshop programs throughout the day will be Dean Mason Ladd, of the SUI College of Law; Mr. C. Joseph Stetler, director of the AMA Legal Department; Dr. Ralph E. DeForest, secretary of the AMA Council on Medical Physics; Mr. R. G. VanBuskirk, secretary of the AMA Committee on Legislation; and Mr. Edwin J. Holman, secretary of the AMA Judicial Council.

At the luncheon meeting, Mr. Carl Conway, world authority in the field of medical jurisprudence and chancellor of the National Academy of Notaries Public, will speak on "Malpractice in Mitchell County."

A presentation will be made of the statement of principles that has been formulated by the recently established Joint Committee of the Iowa State Bar Association and the Iowa State Medical Society. Dr. Donald C. Conzett, of Dubuque, will represent the ISMS on that part of the program.

Etiology and Treatment of

Acute Renal Failure

REPORT OF AN UNSUSPECTED CASE

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DES MOINES

THE CONCEPT THAT physicians have regarding the sequence of events leading to the onset of acute oliguria and anuria in a previously healthy kidney has undergone a rapid evolution during the past few years. The clinical condition was first reported after World War I, and the earliest significant experimental observations appear to have been those of Richards,[19] in 1929, on a microscopic examination of the nephrons of frogs subjected to sublethal doses of nephrotoxic drugs. "The osmotic pressure of the blood proteins," Richards concluded, "is unobstructed by the normal qualities of the tubular epithelium, and is able to draw all, or nearly all, of the glomerular filtrate back into the bloodstream." During World War II, British investigators drew attention to what they considered a distinctive lesion of the kidney following crush injuries.[3, 5, 7] Subsequently, it has become apparent that acute renal failure can follow several conditions. Various terms have been applied to this state: "crush syndrome," Bywaters;[6] "lower nephron nephrosis," Lucke;[11] "acute tubular necrosis," Bull;[2] "acute anuria," Brun;[1] "shock kidney," Van Slyke;[23] and "lower nephron syndrome," Burch.[4]

Grollman,[9] Oliver[15] and others[17, 18, 24] have emphasized that whatever the etiology may be, the local pathology of the kidney arises from anoxia of the nephron unit.

The causes of acute renal failure may be divided into two general groups.[9] Group I consists of nephrotoxic agents which produce direct damage to the tubular epithelium. These include heavy metals, arsenic, carbon tetrachloride, sulfonamides, mushroom poisoning, and solvents such as ethylene and diethylene glycol. In Group II are conditions causing circulatory failure and giving rise to renal anoxia. These disturbances arise from blood loss, hemolysis, plasma volume loss and anoxia. Renal ischemia may result from electrolyte and water loss secondary to diarrhea, from persistent vomiting or from any other cause of deficit in extracellular volume. Eclampsia or infections affecting the blood vessels of the kidney interfere with the renal blood supply, and anoxia results.

Dr. Sola is a senior resident of the Department of Surgery at the Veterans Administration Hospital in Des Moines. He wishes gratefully to acknowledge the assistance given him by his Hospital's Department of Pathology in the presentation of his case.

PATHOLOGY

The localized areas of involvement of the tubular lesions were described as early as 1912.[9] In 1946, Lucke[11] stimulated wide interest by showing that epithelium could be regenerated. But his term "lower nephron nephrosis" has been subjected to criticism on the grounds that the two major premises were either partially or completely in error. The condition does not represent a nephrosis, and it is not necessarily the lower portion of the tubule that is involved.

After absorption from the blood or from the glomerular filtrate, nephrotoxic substances usually affect the first portion or the proximal convoluted tubule. Degeneration of the tubular epithelium occurs, leaving the basement membrane intact. Oliver[15] demonstrated that various toxins exert their effects at different levels of the tubules.

Oliver[15] also pointed out that circulatory failure results in a different pattern of pathology. If damage is severe, disruption of the basement membrane takes place, with the lumen of the tubule opening into the interstitial tissue. The lesions are distributed at random. Some, for example, are adjacent to the glomerulus, and others are in the collecting tubules. Frequently, entire nephrons appear uninvolved.

The lower portion of the tubules and nephrons often contain casts of pigments and cells, and have been thought to be a source of blocking and anoxia. Oliver showed that blocking is impossible, since no proximal dilatation is present and many nephrons contain no casts.

If the basement membrane is intact, regeneration of the tubular epithelium is usually complete. Yet all degrees of injury may be present, and if the basement membrane is absent, a disorganized growth occurs. Persistent albuminuria indicates that nephrons are functioning abnormally.

In correlating the histologic changes with the clinical appearance of the patient, Mallory[12] found no cellular changes up to 18 hours after the onset of oliguria, and concluded that the initial renal insufficiency is physiochemical, without morphologic changes. After three days, the typical necrosis appeared, and edema, herniations and rupture of the tubules could be observed. VanSlyke,[23] elaborating upon those findings, pointed out that the structural changes in the tubular cells are

secondary to a more subtle disintegration of the cellular organization, perhaps one that involves the enzyme systems. The ischemia of shock results in immediate loss of function of the tubular cells. Recovery from shock, locally and/or systemically, is followed by restoration of renal circulation and gradual recovery of glomerular filtration. Tubular failure nevertheless persists, with indiscriminate reabsorption of water and solutes.

Van Slyke *et al.*[24] have shown that during shock there is a marked decrease in plasma flow through the kidney, accompanied by a corresponding diminution in the glomerular filtration rate. Phillips and Hamilton[18] showed that a marked disturbance of tubular function persisted several days longer. The decreased renal plasma flow not only reduces the glomerular filtration rate but aggravates the renal ischemia, which in turn diminishes tubular function and allows greater back-diffusion of the glomerular filtrate.

In a surgical patient, the onset of acute renal failure can be exemplified by the results of hemolytic transfusions during surgery. The patient coming to surgery frequently has had no fluids for 12 hours or more. Partial dehydration may be increased by fever, vomiting or fistulous loss. During a long surgical procedure, more than two liters of fluid may be lost through skin, through air passages and by absorption into sponges and drapes.[16] Blood pressure drop is thought to necessitate a transfusion, and if one transfusion is ineffective or if the blood pressure continues to fall, further transfusions may be ordered without consideration for the possibility of reaction. The chill, elevation in temperature, pain in the back and vomiting which often accompany such a reaction are not apparent in the anesthetized patient.

Postoperative vomiting, continued hypotension and oliguria are seen more frequently. Oliguria and anuria may persist 24 hours or more before acute renal failure is suspected. If a long or difficult surgical procedure is anticipated, one should eliminate dehydration if possible. A drop in blood pressure during transfusion, if not correlated with gross hemorrhage, should arouse suspicion of a hemolytic reaction.

Regardless of the source, whenever acute renal failure occurs, the clinical course may last from a few days to a few weeks, and can be broken down into three phases: (1) the phase of shock, which appears to be the commonest antecedent and/or aggravating cause; (2) the phase of maximal renal failure, lasting from 3 to 14 or more days; and (3) the phase of recovery, with diuresis and renal convalescence.

RESULTS OF TUBULAR INSUFFICIENCY

When the glomerular filtrate comes into contact with the basement membrane denuded of tubular epithelium, it is completely reabsorbed. A few intact nephrons, which may continue to excrete a small amount of urine, account for the oliguria which is often seen. Urea, uric acid, creatinine and inorganic acids accumulate, and the concentration rises progressively in the blood. These products result from cellular breakdown and give rise to acidosis and a diminution of bicarbonate concentration of the blood.

The potassium level usually rises as the result of several factors. The breakdown of protein results in the liberation of potassium in a fixed ratio to nitrogen. This process is accentuated by tissue destruction and starvation. Hypertonicity of the cellular contents may cause a potassium shift from the intracellular compartment to the extracellular one. In the nephrectomized dog, Keating and Elman[10] have shown that acidosis results in potassium shift from the intracellular space, whereas alkalosis causes migration of the potassium into the cells.

Meroney and Herndon[13] emphasized that during oliguria the retention of inorganic phosphate is associated with a fall in the level of plasma calcium. This deficit of calcium is important, for calcium is a specific antagonist of potassium.

Usually, the blood urea nitrogen becomes rapidly elevated during the first seven days, and then tends to remain fairly steady. Hypochloremia is a common finding, and if diarrhea and vomiting are present, plasma chloride levels may go below 80 mEq. per liter. There may be a mild hypertension, usually in the vicinity of 150/90.

In contrast with the remediable form of acute renal failure, the unrelenting cases studied by Muirhead[14] were accompanied by mental disturbances. Drowsiness was prevalent, and some patients were confused, irrational and at times maniacal. No localizing neurologic signs were found. In two of the three cases treated at the Des Moines VA Hospital by the author of this paper, mental disturbance was present, and it was more pronounced in the patient who expired than in the one who recovered.

In 5 out of 10 fatal cases, Muirhead also found pulmonary edema, as indicated by basal or generalized rales. Preceding the edema, rapid respirations became prominent, and cyanosis was evident during the bouts of edema. Bronchoscopy or the use of a tracheal catheter yielded a thin, bloody fluid, but failed to relieve the respiratory distress. Anemia was present in all severe cases. Diarrhea was often a prominent disturbance, the stools being watery and bloody.

Small excesses of potassium produce no electrocardiographic changes other than elevation and peaking of the T waves, best seen in the precordial leads. When plasma potassium increases, the T-wave changes become more marked and are seen in the limb leads. Yet this finding is not of quantitative significance in severe hyperpotassemia. Progressive changes in the QRS complex,

especially apparent in the limb leads, suggest a grave prognosis. In the limb leads, the angle between the S wave and the ST segment widens and encroaches upon the horizontal components of the ST segment until it is obliterated. P waves disappear, T waves diminish in height and become rounded at the top, the R-S angle increases and the smooth biphasic curves finally resemble a sine wave. When mild intoxication, indicated by T-wave abnormality only, suddenly progresses to severe intoxication, indicated by QRS widening, the explanation—according to Meroney and Herndon[3]—is usually a fall in plasma calcium. Striking improvement following calcium infusion supports this interpretation, but if not, the changes can be considered due to a sudden increase in potassium due to hemolysis or infection.

Considerable disagreement exists in the literature, for many authors discredit the electrocardiogram as a guide, and others state that it is capable of recording only the late changes. It must be remembered that both myocardium and plasma levels may be latent reflections of potassium changes in the body compartments.

TREATMENT

In treating acute renal failure, Strauss and Muirhead[21, 14] say that one should first undertake to combat shock and to readjust the volume and electrolyte composition of the body fluids. Whole or washed red blood cells may be used, although serum albumin or other colloids such as Dextran may be given if the blood count is not too low. They say that although edema is undesirable, a reasonable excess of fluid is preferable to a deficiency.

Circulation, volume and electrolyte concentration, when once restored, should be maintained as well as possible. Insensible weight loss and other losses should be replaced daily. Protein destruction can be minimized through the administration of at least 100 Gm. of sugar, preferably of the invert type.[25] Protein is poorly tolerated in anuria. Indeed, these patients are usually better treated if nothing is given them by mouth, for vomiting often aggravates the electrolyte disturbance. Strauss[21] feels that sodium bicarbonate is indicated for the correction of acidosis. VanSlyke[24] and Peters,[16] however, state that the bicarbonate deficiency is usually due to a displacement of bicarbonate by other ions. They contend that bicarbonate should be given only if there is a concurrent deficit of sodium. My own experience indicates that after the institution of therapy one can expect no more than mild improvement of the CO_2 level until diuresis occurs.

Meroney and Herndon[13] draw several conclusions as a result of their work at the Renal Insufficiency Center during the Korean War. If a patient had been diagnosed or suspected of being oliguric, an indwelling catheter was inserted, and renal failure was said to have occurred only when the urinary output fell below 20 cc. per hour. When it was decided that the patient was definitely oliguric, fluid intake was limited to 500-600 cc. plus an amount equal to the output of urine and gastric suction drainage. Because the oral intake often resulted in vomiting, fluids were given intravenously, and preferably through a cut-down catheter. The toxic effect of an elevated serum potassium was seen on the electrocardiogram prior to the appearance of symptoms. The electrocardiogram was felt to be an accurate key to the blood level of potassium when no other electrolyte abnormality was present other than hyperpotassemia. That situation, however, was seldom present. Since single injections of calcium caused a striking improvement in the electrocardiogram, an almost continuous infusion of calcium was considered necessary.

The sodium and potassium levels reported by Meroney and Herndon were inversely proportional, and raising the plasma sodium concentration caused a fall in the plasma potassium, possibly because the potassium ions were forced back into the cells. Plasma potassium was also reduced through the use of hypertonic dextrose, the process being hastened by the addition of insulin, which aids in the removal of potassium phosphate for utilization in carbohydrate metabolism. If dextrose is given, it should be continuous, for a hypoglycemic period results in glycolysis and a further release of potassium into the plasma.

Meroney and Herndon[13] reported a standard solution which they found effective in diminishing potassium intoxication:

Calcium gluconate 10 per cent	100 cc.
Sodium bicarbonate 7.5 per cent	50 cc.
Dextrose 25 per cent in H_2O (containing 50 units of regular insulin)	400 cc.
Isotonic NaCl or 1/6M sodium lactate	Equivalent of output volume
*Water soluble vitamins	
Ascorbic acid	2 Gm.
Thiamine chloride	50 mg.
Vitamin K	20 mg.

The solution is given intravenously through a catheter in a large vein at 25 cc. per hour. Small transfusions and antibiotics are also given, and when diuresis starts, 4-6 Gm. NaCl and 1-2 Gm. KCl should be added.

Ion exchange resins were found to be less effective than intravenous control. The artificial kidney was of some value for uremia, but seldom was indicated.

Goldbloom[8] has recommended repeated exchange transfusions for uremia, a method frequently used in France. This method is costly and

* Meroney and Herndon say: "The vitamin prescription was chosen in the interest of a concurrent study of wound healing and is not necessarily optimal."

inefficient, requiring the exchange of ten liters of blood to reduce the blood urea nitrogen of a 60 Kg. man by 1/6 if the blood urea nitrogen level is 500 mg.

Grollman[9] feels that peritoneal lavage affords a simple and relatively safe method for removing urea and potassium.

The diuretic phase must be observed carefully, for Swann and Merrill[22] have shown in their review that about 25 per cent of deaths from acute renal failure occur in this period. The elaboration of urine may begin in several ways, but increments of 200, 300 or 500 cc. of urine per day occur over a period of four to five days. One should not be lulled into a false sense of security by an increase of 25 or 50 cc. per day, for the patient's extremely dilute urine is of little use in the removal of accumulated nitrogenous substances. Occasionally, a patient appears to have a fixed urine output of 200 to 500 cc. over a period of a week or more.

During the diuretic phase, the blood urea nitrogen concentration may become further elevated, and the increase should be considered a reflection of previous excessive water accumulation.

It is often stressed that large amounts of sodium and chloride may be lost during high urine output. Yet it should also be remembered that if the patient has previously been overloaded with salt and water, such a diuresis may represent a loss of accumulated edema. Using simply the urine output to gauge the administration of salt and water will perpetuate the edematous state.

Most patients who recover from acute renal failure have few residual signs or symptoms of renal disease. Swann and Merrill[22] say that the ability to concentrate urine is the last clinical test for determining that function has returned to normal. However, more accurate determinations of renal function, such as insulin and paraminophippurate clearance tests, show some clinical reduction in kidney function which may be permanent. Such reduction, however, may not be accompanied by clinical signs or symptoms and may be consistent with normal daily activity.

CASE PRESENTATION

A 63-year-old farmer was admitted to the Des Moines VA Hospital complaining of headaches, mental confusion and abdominal pain. Ten days previously he had fallen through a hole in a barn floor, and afterward he had had difficulty in walking, he had staggered and he had seemed dazed. He continued to work, but a short time later he began to feel worse, his speech became thick and he developed cramp-like pains in his right leg. Two or three days later, he developed severe frontal headaches and pain in the back of his neck and in his precordium. Two days prior to admission, he became confused, lethargic and disoriented, his vision became blurred and he vomited blood-tinged material. The day prior to admission he had a convulsive seizure involving his right arm and leg, followed by fecal incontinence and unconsciousness. A reliable past history was difficult to elicit either from him or from his family. His wife said that to her knowledge he had been in good health, except perhaps for increased urinary frequency.

Physical examination on admission revealed a well nourished individual who was lethargic, but fairly well oriented. The blood pressure was 170/90, and the pulse was 68 and regular. The rectal temperature was 97°F. There was moderate nuchal rigidity. The pupils were round and equal, and they reacted to light and accommodation, but the vision was grossly diminished. Examination of heart, lungs and abdomen produced no unusual findings. Neurologic examination showed absence of abdominal and cremasteric reflexes. The right ankle jerk and knee jerk were hyperactive, and there was right ankle clonus. The left ankle jerk was absent, and the left knee jerk was hyperactive. Babinski reflexes were doubtful.

Examination of the cerebrospinal fluid showed a pressure of 250 mm. Hg., with free rise and fall. The fluid was clear. Total protein was 107.5 mg. per cent, the Kolmer was negative and the colloidal gold curve was 5555432100. X-rays of the skull and cervical and thoracic vertebrae were not unusual. The urine was grossly bloody, it gave a 4+ reaction for albumin and a negative reaction for sugar, and its specific gravity was 1.015. A hemogram revealed a red blood cell count of 4.13 million, a white blood cell count of 11,600, and 12 Gm. hemoglobin. The following blood chemistry values were obtained on admission: blood urea nitrogen 147.0 mg. per cent; CO_2 combining power 24 volumes per cent; chlorides 96 mEq. per liter; calcium 3.6 mEq. per liter; sodium 140 mEq. per liter; and potassium 7.4 mEq. per liter.

At the hospital, the patient was initially given crysticillin and intravenous saline solutions slowly. Oliguria, which was present upon his admission, persisted, and the blood urea nitrogen rose to a final value of 168.6 mg. per cent, whereas the CO_2 combining power fell to less than 10 volumes per cent. Repeat urinalyses continued to show albuminuria and hematuria. Intravenous sodium bicarbonate and calcium gluconate were given for the acidosis. An electrocardiogram was interpreted as abnormal unspecific. A cystogram showed trabeculation of the bladder outline and small diverticula along the left border. During the entire period of the patient's hospitalization, he was disoriented and confused, and he had repeated convulsive seizures that were controlled to some extent by sedation. He developed signs of pulmonary congestion, and finally expired six days following admission.

At necropsy, the important findings were confined to the kidneys and liver. The kidneys were enlarged, they had extremely pale, swollen cor-

tices, and microscopically they showed severe hydropic degeneration of proximal convoluted tubules and contained many calcium oxalate crystals (Figure 1). There was a patchy degeneration involving the liver, but no crystals were seen in this structure or in any of the others. It was felt that the changes in the kidney and liver were due to ethlyene glycol (antifreeze poisoning). Similar cases had been reported by Smith,[20] and the above findings were confirmed by the Armed Forces Institute of Pathology.

SUMMARY

The early terms for acute renal failure were often confusing, for they referred to the etiology or to one of the end results of the illness.

It has become apparent that renal anoxia, either local or secondary to systemic shock, is the common factor in acute renal failure.

The histologic, physiologic and clinical pathology that occur in this disease have been briefly described.

Effective treatment is based upon normal hydration, maintenance of electrolyte balance and diminution of acidosis, as well as by careful observation of the diuretic phase.

A case of unsuspected renal failure has been presented.

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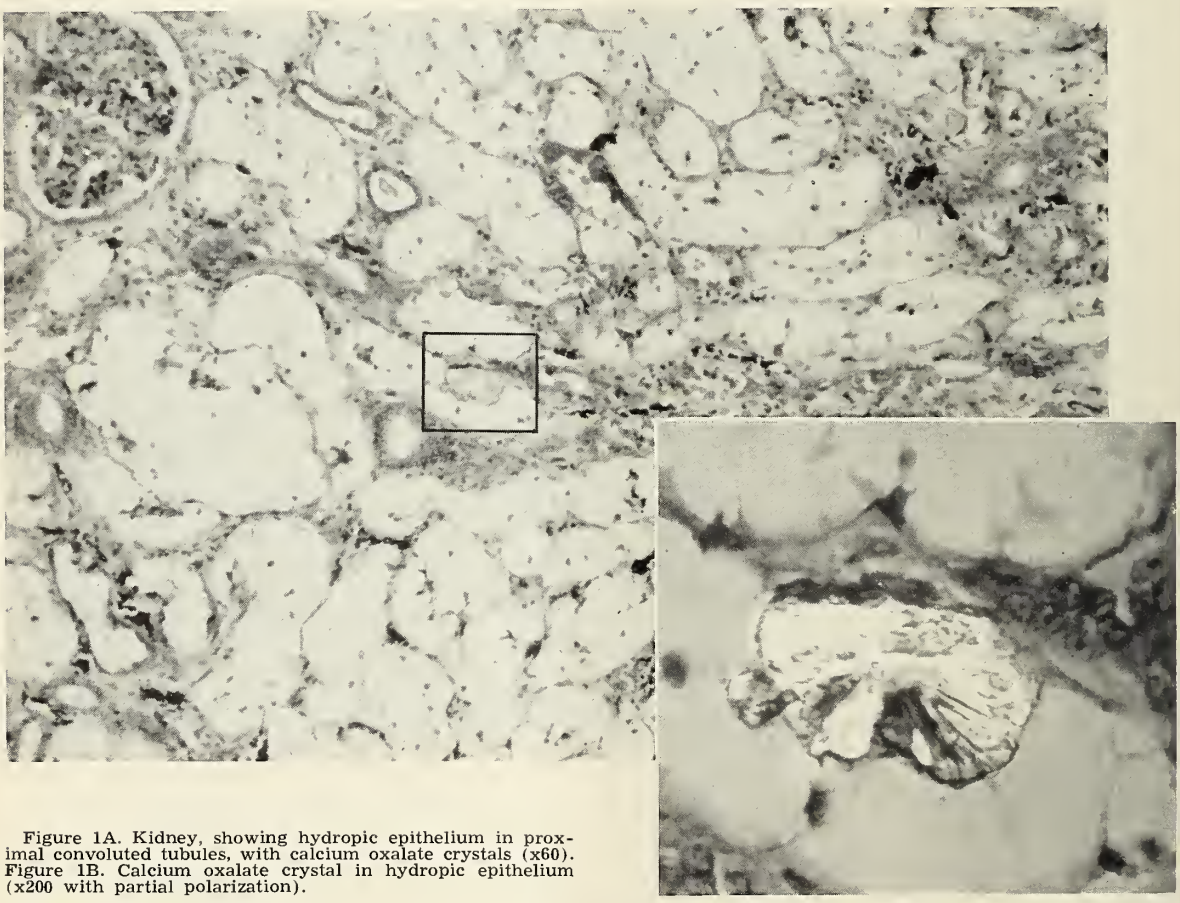


Figure 1A. Kidney, showing hydropic epithelium in proximal convoluted tubules, with calcium oxalate crystals (x60). Figure 1B. Calcium oxalate crystal in hydropic epithelium (x200 with partial polarization).

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Psittacosis in Iowa, 1953-1954

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DES MOINES

The first recorded case of psittacosis in Iowa was described by Laubscher *et al.*[1] in 1945. A 15-year-old boy developed it 12 days after being bitten by a parrot which mouse inoculation tests later showed to be positive for the disease. Subsequently, psittacosis was not reported until 1953, when 11 cases were recorded, and 11 more cases were reported in 1954. This paper discusses the series of 22 cases.

In any one year between 1945 and 1951, the number of cases of psittacosis reported in the United States did not exceed 35.[2] But since 1951, the number has risen quite sharply. There were 135, 169 and 445 cases in 1952, 1953 and 1954 respectively.[2] On April 8, 1955, the weekly Morbidity and Mortality Report of the Department of Health, Education and Welfare indicated that the increased incidence of psittacosis was continuing. A total of 90 cases from 28 states had been recorded up to that time, in contrast with 50 in 16 states during the same period of the previous year. During 1954, there were eight states that reported more cases than Iowa. And since there is no reason for believing that Iowa physicians had become more alert to the possibility of psittacosis than they had been a year earlier, we are led to conclude that the incidence had increased.

SEASONAL INCIDENCE

Meyer[3] has reported a greater prevalence of psittacosis from January to April than in the other months of the year. A similar seasonal distribution was noted in Iowa cases (Figure 1), for all cases except one are shown to have occurred during the first six months of the year. Meyer[5] attempts explaining this phenomenon by pointing out that parakeets are frequently Christmas gifts and that their owners have greater contact with them in closed rooms during the winter season. In Iowa, the majority of parakeets intended as pets are sold during a period from just before Christmas until Easter. That being the case, if there are to be human cases of psittacosis, they are most likely to occur during those months, for it is then that

DISTRIBUTION BY MONTH OF ONSET OF REPORTED CASES OF PSITTACOSIS IN IOWA, 1953-1954

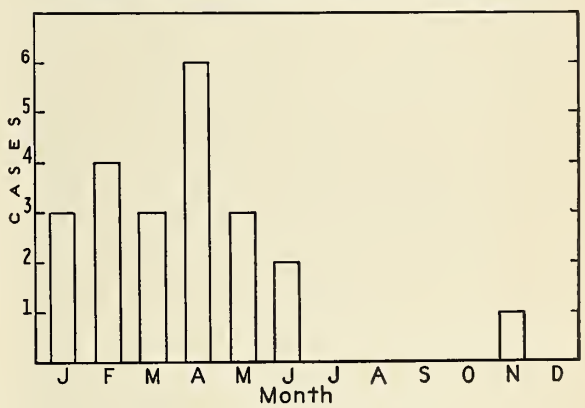


Figure 1

The authors are, respectively, public health veterinarian, director of the Division of Preventable Diseases, and assistant director of the State Hygienic Laboratory of the Iowa State Department of Health. The paper was presented at the Middle States Public Health Association annual meeting in Chicago, on April 21, 1955.

people come into close contact with the birds for the first time in their lives.

GEOGRAPHICAL DISTRIBUTION

The cases were scattered throughout the state. During the two years, cases were reported from 14 of the 99 Iowa counties. Two counties reported cases both years. One county reported four cases, one three, three two, and nine only one case each.

SEX AND AGE

Of this group of 22 cases, 12 were males and 10 were females. The age distribution of the patients emphasizes the statement by Meyer[3] that the majority of psittacine infections have occurred in people of middle age. Of the 22 patients only six were less than 40 years of age. Eight cases were in the age group 40 to 49 years (Figure 2).

AGE DISTRIBUTION OF REPORTED CASES OF PSITTACOSIS IN IOWA, 1953-1954

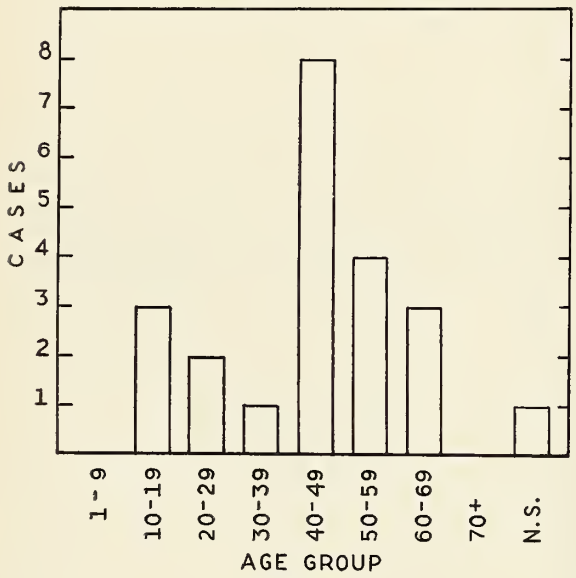


Figure 2

In some instances only one person in a household became sick. Three cases developed in each of two households, and two cases occurred in another home. The remaining ones were single cases in a household. Epidemiologic findings indicate that the person actually caring for the parakeet is the person most frequently affected.

OCCUPATION

Of the 10 female patients, nine were housewives and one was a sales clerk in a chain store that sold parakeets. The 12 male patients were distributed among eight different occupations, and only one occupation had more than one case. Three of the male patients were listed as students: a ten-year-old boy, a boy aged 15 and a college student aged 28.

CLINICAL MANIFESTATIONS

Although there was great variation in the clinical manifestations, many of the patients presented the same signs and symptoms. Nineteen patients reported fever, and ten had chills. Seventeen complained of headaches that varied from mild in some patients to very severe in others. Cough was present in 11 cases. It was usually slight, and either non-productive or only slightly so. Eight complained of chest pains. "Flu-like" symptoms, including muscular pain, malaise and backache, were mentioned several times. Two patients had convulsions, and two were cyanotic. One had nosebleed. Loss of appetite, nausea and diarrhea were also mentioned by some patients. Chest x-rays were not taken of all patients, but six did show roentgenologic evidence of unilateral or bilateral virus pneumonia. In some cases the clinical findings were minimal in contrast to the extremely toxic condition of the patient.

One individual, a 35-year-old housewife, developed phlebitis in the left leg during the third week of her illness. Although this condition may appear to be unrelated, it is interesting to note that Meyer[4] says thrombophlebitis may occur in patients with psittacosis.

The severity of the disease varied. Some patients were moderately ill for a week or ten days, whereas others were very severely ill and required bed rest for several weeks. Some were hospitalized. The fact that there were no fatalities can be accounted for by the effectiveness of modern therapy.

DIAGNOSIS

Although Smadel's criteria for isolation of the virus during the acute phase of the disease[3] and his demonstration of a rising titer of complement-fixing antibodies have not been fulfilled, we believe that there is a reasonably adequate basis for a diagnosis of psittacosis in each of these cases. As mentioned above, clinical manifestations compatible with psittacosis were present in all cases. Serologic evidence of psittacosis was present in all but two cases. From one to four blood samples were tested from each case. Preliminary complement-fixation tests with lygranum antigen were done at the State Hygenic Laboratory at Iowa City. Confirmative complement-fixation tests with psittacosis antigen were done in all cases by Dr. K. F. Meyer, director of the Hooper Foundation at the University of California Medical Center, in San Francisco. In comparing the results of the lygranum antigen with those of the psittacosis antigen, we noted that the lygranum titer averaged about two dilutions lower than the titer with psittacosis antigen. All the titers referred to in this discussion are those obtained with psittacosis antigen.

A fourfold or greater increase in the complement-fixation titer, along with clinical and epidemiologic evidence, is recognized by Meyer[3] as being diagnostic for psittacosis. In this series, a fourfold rise in titer was not observed in all cases. However, some of those cases on which paired specimens were tested showed a fourfold rise in complement-fixation titer, or a change from negative to positive during the course of the illness. Some did not show this change, but in most of such instances the first specimen was taken three weeks or more after the onset of the illness. In one case, the only specimen tested was obtained ten days after the onset of illness. However, tests of paired specimens from this patient's mother, who also had psittacosis, revealed a rising complement-fixation titer. The other patient (54-4) in whom complement-fixing antibodies were not demonstrated in paired specimens was one of three affected persons in a single family. Although complement-fixing antibodies were not demonstrated, mouse inoculation of blood from the patient during the early phase of the illness isolated the psittacosis virus.

CONTACT WITH BIRDS

During epidemiologic investigations, it was learned that all the patients had had contact with parakeets during the weeks before the onset of illness. One patient (54-11) reported contact with pigeons too. The remainder of them reported little or no contact with other species of birds. One of the noteworthy facts in connection with parakeet contacts was that recently acquired parakeets were usually involved. Ten of the patients reported that they had acquired the birds no more than 60 days before onset of illness. Frequently their illness occurred within as short a period as two to four weeks after the bird's purchase. There were five patients who reported contact over a period as long as 60 to 90 days before they became ill. One of these was a person who, entering the parakeet-breeding business, had purchased 25 birds and had visited dozens of aviaries during the period. The other was a hardware store operator who had started retailing parakeets.

Among the seven patients who reported contact with parakeets over a longer period of time, four were parakeet breeders, one was a clerk in a variety store that retailed parakeets, one did some trading of birds, and the other was a boy who had had several contacts with parakeets at his grandparents' home over a period of a year and also had shot pigeons.

Our investigations revealed no facts suggesting person-to-person transmission in this series of cases.

EXAMINATION OF BIRDS

Unfortunately, none of the birds suspected as possible sources of infection for the 1953 cases were available for laboratory examination. They either had died or had been destroyed prior to the time of epidemiologic investigation. Six parakeets associated with the 1954 cases were obtained for virus isolation studies. Of the five that were submitted to Dr. K. F. Meyer, of the Hooper Foundation, three were reported positive as the result of mouse-inoculation tests. Two of the infected birds could either or both have been responsible for just one of the human cases. One of the infected birds was from the home in which there were three human cases in the family. The sixth bird was examined at the U. S. Public Health Service Virus and Rickettsia Laboratory at Montgomery, Alabama, and was reported positive for psittacosis virus. The birds suspected of being the sources of four of the 1954 cases were not available for examination. In summary, then, of the six birds examined, four were positive for psittacosis virus.

CASE REPORTS

A few case reports will illustrate the manner in which the disease has occurred in Iowa. Case 53-3, a farm housewife aged 35, became ill on April 8. She complained of severe headache, and had a fever of 103°F., anorexia, low chest pain with respiratory movements, and cough with blood-tinged sputum one afternoon during the first week of her illness. On the eighth day of her illness, the complement-fixation test for psittacosis was negative, but on the twenty-fourth day the test was positive in a dilution of 1:256. This patient developed phlebitis in her left leg during the third week of her illness. She had purchased a parakeet from a pet store in December. It died February 1, and she bought a replacement bird on March 7. Her husband and four school-age children remained apparently healthy.

The next report involves an outbreak of three cases in a single family. The father, a packing-house clerk aged 53 (S. H., case 54-3), sought medical attention on February 25 after four days of illness. He complained of severe headache, muscle aches, fever (103°-104°F.) and chills. Penicillin was administered for three days without improvement. A chest x-ray on February 28 revealed pneumonitis. His white blood count and differential counts were normal. His urine was normal. Typhoid, para-typhoid, tularemia and brucella agglutination tests were negative. Treatment with tetracycline hydrochloride was started, and a marked improvement was noted in 24 hours. A chest film on March 3 showed considerable improvement. The complement-fixation titers with psittacosis antigen were 1:128 and 1:64 on the twentieth and thirtieth days of illness, respectively.

The mother (I. H., case 54-5), a housewife aged 46, became ill about a week after her husband. Symptoms, mild during the first week, were similar, and a chest x-ray indicated pneumonia of

the right lung. Psittacosis virus was isolated from the patient's blood, but complement-fixation tests on the fourteenth and twenty-fourth days of illness were negative. Rapid improvement followed the institution of tetracycline hydrochloride therapy. The son (M. H., case 54-4), aged 28, became ill about three days after the appearance of his father's initial symptoms and about four days before his mother became ill. He was a student living in a town about 100 miles distant from his parents' home. He did not receive medical attention until the twenty-fifth day of his illness. At that time he was extremely ill and was hospitalized. Prominent clinical manifestations in his case were pleuritic chest pains, shortness of breath, fever, profuse sweats and cyanosis. There was no real cough, but he raised a rust-colored exudate by clearing his throat. X-rays revealed pneumonia of the lower half of both lungs. The complement-fixation titer on the thirtieth day of his illness was 1:256. Response to tetracycline hydrochloride was good, and the patient was released from the hospital 20 days after his admission.

Case 54-10 was a hardware store operator aged 45. He became sick about April 1 with a fever of 104°F., chills, chest pain, malaise, slight cough and blood-tinged sputum. The complement-fixation titers were 1:4 and 1:32 on the seventh and twenty-second days of illness, respectively. The patient recovered promptly following tetracycline hydrochloride therapy.

All the cases reported in 1954 are summarized briefly in Table 1.

SUMMARY

Twenty-two cases of human psittacosis were reported from widely scattered areas of Iowa during 1953 and 1954. Epidemiologic investigations indicated that parakeets were the most likely sources of infection. Psittacosis virus was isolated from four of six parakeets examined. Rising or high complement-fixation antibody titers were ob-

TABLE 1

SUMMARY OF REPORTED CASES* OF PSITTACOSIS IN IOWA IN 1954

Patient	*Age*	*Sex*	*Month of Onset*	*Interval***	*C-F**** *Titer*	*Occupation*	*Remarks*
A. M. 54-1	50	M	Nov.	60 70 150 180	1:64 1:128 1:28 1:64	Printing Shop Employee	Cared for friend's parakeets.
M. T. 54-2	45	F	Jan.	20 35 175 182	1:16 1:32 1:16 1:16	Housewife	Purchased 30 parakeets in weeks before onset of illness.
S. H. 54-3	53	M	Feb.	20 30	1:28 1:64	Clerk in Packing House	Psittacosis virus isolated from patient's parakeet.
I. H. 54-4	46	F	Feb.	14 24	neg. neg.	Housewife	Wife of S. H. Psittacosis virus isolated from patient's blood.
M. H. 54-5	28	M	Feb.	30	1:256	Student	Son of S. H. and I. H. Visited in parents' home February 13 and 14.
Mrs. W. L. 54-6	58	F	May	7 21 35 120	neg. 1:16 1:16 1:4	Housewife	Psittacosis virus isolated from two of patient's parakeets.
A. W. 54-7	40	M	Feb.	80 90 105	1:256 1:256 1:32	Grocery Salesman	Several parakeets in patient's home.
M. M. 54-8	19	F	Apr.	7 14 30	1:64 1:128 1:128	Sales Clerk	Worked in variety store that sold parakeets.
Mrs. B. C. 54-9	45	F	May	7 23	neg. 1:8	Housewife	Psittacosis virus isolated from patient's parakeet.
B. R. 54-10	45	M	Apr.	7 22	1:4 1:32	Operates Hardware Store	Started retailing parakeets six weeks before onset of illness.
M. W. 54-11	10	M	Jan.	35 40 65 360	1:16 1:2 1:8 neg.	Student	Contact with grandfather's parakeets and with pigeons on father's farm.

* Complete cooperation of attending physicians permitted us to obtain case histories.
** Approximate interval in days between onset and day blood was drawn for C-F test.
*** Tests by Dr. K. F. Meyer, Director, Hooper Foundation, University of California Medical Center, San Francisco, California.

served in all but two cases. There was no indication of person-to-person transmission. The variation in the clinical manifestations in this small series of cases suggests that psittacosis should be considered as a possibility in persons with an unusual respiratory disease, and emphasizes the suggestion of Maclachlan *et al.*[5] that possible contact with birds should be inquired about in every case of atypical lung infection.

ADDENDUM

Since this manuscript was submitted for publication in the fall of 1955, three human cases of psittacosis among persons handling turkeys were reported in Iowa. Also, in 1955, Paul C. Bennett, D.V.M., Iowa State College, reported the finding of serologic evidence of ornithosis (psittacosis) in Iowa turkey flocks.

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State University of Iowa College of Medicine

Clinical Pathologic Conference

February 1, 1956

SUMMARY OF CLINICAL FINDINGS

A NINE-MONTH-OLD MALE infant was admitted to University Hospitals with fever, an unexplained skin lesion and signs of acute systemic illness. The family history and the history of the infant's birth were noncontributory. Likewise, the data relating to the neonatal period, growth and development were within normal limits. A skin lesion diagnosed as eczema had been present from birth until the second month of life. The admission history includes a statement made by the parents that the infant had been "sick most of his life."

During the third month of life, the infant had had an onset of diarrhea and accompanying dehydration that required care at a hospital near his home. The hospitalization was short, for the patient's response to therapy was immediate.

During the eighth month of life, the infant again had become ill with diarrhea and had once more been admitted to the local hospital to receive appropriate antibiotic, fluid and electrolyte therapy. His response to this treatment was not altogether satisfactory, but he was much improved at the time of his dismissal seven days later. Then after three days, he exhibited fever and listlessness, and was returned to the hospital for antibiotic therapy and transfusions. Blood was drawn for a Widal examination, and a titer of 1:160 was obtained. At that time, the water in the well at the child's home was examined and was described as "containing many bacteria." During the 11 days that the child spent in the local hospital at that time, he showed little if any response to therapy. Because of the severity of his disease and the difficulties of providing him with isolation care in that institution, he was transferred to University Hospitals, Iowa City.

At the time of his admission here, the infant was mentally alert, but had the appearance of being seriously ill. A generalized erythema covered the greater part of his body, but was more severe on the lower extremities. The mucous membranes of the pharynx were injected, and a grey, membranous lesion was discovered on the pharyngeal tonsils. The chest was clear to auscultation and percussion. The liver was felt 3 cm. below the costal margin, and the tip of the spleen was palpable. The left ankle was swollen and injected over the site of a previous "cut-down." A moderate amount of generalized lymphadenopathy was present. There was questionable nuchal rigidity. The body temperature was 104.8°F.

The examination of the blood showed 12.8 Gm. of hemoglobin per 100 ml.; a white blood cell count of 9,800 per cu. mm.; and a differential count of 88 per cent lymphocytes, 5 per cent bands, 1 per cent polymorphonuclear leukocytes, 1 per cent eosinophils, 2 per cent monocytes, and 3 per cent unclassified. An examination of the bone marrow showed proliferation of the RE cells and plasma cells. The pathologist reported, "There appears to be a maturation arrest of the myeloid series at the myelocyte state, and a lymphocytosis of approximately 50 per cent." Examination of the urine revealed a trace of albumin, with 8 to 10 granular casts and 10 to 15 white cells present in an uncentrifuged specimen.

A lumbar puncture demonstrated normal pres-

sures. The values of the protein, sugar and chloride in the cerebrospinal fluid were within normal limits, and the culture of that fluid showed no growth. A roentgenogram of the chest was interpreted as showing "interstitial pneumonitis." A blood culture revealed Bacillus subtilis. A stool culture was negative, as was a culture of the urine. Blood was drawn for a repeat Widal examination and was reported to show 1:160 titer versus S. typhosi O.

Chloramphenicol, streptomycin and intravenous fluid therapy were started on the basis of the history and physical findings.

On the second day, the child had a sustained fever ranging from 102.4 to 104.4°F. The skin lesion persisted. A member of the staff in Dermatology saw the child and reported "livido reticulosis with toxic erythemia, not suggestive of a specific diagnosis." The stool and blood cultures were repeated and were negative. From a throat swab, Pseudomonas aeruginosae were cultured. They were resistant to oxytetracycline and neomycin, but were sensitive to 50 micrograms of polymixin. Candida albicans likewise made an appearance in the culture of the throat swab. No change was made in the regimen of treatment.

There were no changes in the physical findings on the third day. During the morning, the fever rose to 104.8°F., and a generalized convlusion occurred. The child passed eight large diarrheal stools during the day. The therapy program was enlarged to include cortisone, 25 mg. intravenous and 25 mg. intramuscular.

No remarkable changes in the clinical findings were observed prior to the infant's death during the night of his third hospital day.

CLINICAL DISCUSSION

Dr. John C. MacQueen, Pediatrics: The patient whom we are to discuss today was a nine-month-old boy admitted to the Department of Pediatrics with fever, an unexplained skin lesion and the appearance of severe illness. There are two statements in the first paragraph of the protocol that should be noted. The first records that "eczema was present from birth until the second month of life." We have no way of knowing whether or not that was an entirely specific diagnosis, for the word *eczema* is commonly used to describe almost any chronic skin disease of infancy. The skin lesion, whatever it was, cleared during the second month of life, and there is no suggestion that the child had other manifestations of allergy. Thus, I think we may place a question mark after the diagnosis of "eczema."

The second statement to be noted in the first paragraph of the protocol is that the child was reported to have been "sick most of his life." During the third month of life, the baby did have diarrhea, but apparently the illness wasn't especially severe, and episodes of mild diarrhea certainly are not uncommon during infancy. At the time of admission, moreover, the patient was described as being a well-nourished infant. This evaluation discredits the possibility that any chronic disease had produced the symptom of diarrhea.

During the first year of life, there are few infants who have two episodes of diarrhea of such severity as to justify hospitalization. When something of the sort does occur, we must be concerned about the sanitation of the infant's environment, lest repeated exposures to infection be the cause.

We must also consider the disease states that result in frequency of stools. The first episode of diarrhea was so mild, in contrast to the second one, that I believe we may safely consider them to have been unrelated illnesses.

In the remainder of my remarks, I shall be speaking of the infant's second illness, the one which resulted in his admission to University Hospitals and which seems to have been responsible for his death.

When the infant was admitted to the local hospital for help in his second bout with diarrhea, he was treated with antibiotics. We do not know what antibiotics were used, but we do know that after seven days of such treatment he was described as "partially recovered." When his diarrhea recurred, he was returned to the hospital with symptoms of fever and listlessness. Again he was treated with an unidentified antibiotic. At that time, a polyethylene catheter was placed in a leg vein for the administration of fluids. This cut-down was done 11 days prior to his admission to University Hospitals, and the area of the cut-down subsequently became infected. One of the examinations done to determine the cause of his diarrhea was a Widal test, and a titer of 1:160 was recorded. On the basis of the medical treatment given the patient folowing the report of the Widal, it would seem that a working diagnosis of typhoid had been established on the basis of that test. We do not know whether cultures were taken of the stools, blood or urine. But we do know that the home was examined in an effort to find a cause or source of contamination, and that "bacteria" were found in the family's water supply.

The child was in the local hospital for 11 days, and it is presumed that chloramphenicol therapy was given. The clinical signs of disease did not seem to improve with therapy. Then because the local hospital was reluctant to keep a patient with this diagnosis, he was transferred to University Hospitals with the diagnosis of typhoid fever.

Typhoid fever has somewhat different clinical courses in childhood and in adult life. In childhood, the variations in temperature from day to day are unimpressive, the discrepancies between pulse and fever are less pronounced than in adulthood and the dicrotic type of pulse is not present. Probably no more than half of the child patients have diarrhea of any severity, and symptoms indicating a

depression of the sensorium are infrequent. When typhoid fever occurs during the first year of life, the clinical course of the disease is entirely different. The clinical signs of typhoid fever in infancy are the clinical signs of sepsis. Constipation, rather than diarrhea, is commonly present, and the mortality rate nears 100 per cent.

We have discussed the variations in the clinical course of the disease as it is altered by age. It is also necessary for us to be aware that the clinical course of the disease is altered by therapy. In patients treated by chloramphenicol, the acute signs of the disease last no more than from four to seven days, instead of from two to three weeks as they used to do. At the end of a week, the patient may not be entirely well, but can be expected to be convalescing. Occasional bouts of low-grade fever may be present, but the liver and spleen are usually approaching normal size.

At the time of the patient's admission to University Hospitals, it was thus presumed that the chloramphenicol therapy had altered not only the course but also the clinical signs of the disease. The skin lesions present at the time of admission were not the embolic rose spots found in typhoid fever patients. On the other hand, it was thought that these lesions might have been altered by therapy. The liver and spleen that are enlarged in typhoid fever by the engorgement of red cells, phagocytes and bacteria were not palpable, but as the result of prolonged therapy, it was presumed that they might very well have returned to normal size.

As regards the patient whom we are considering, the findings obtained in the blood examination supported the diagnosis of typhoid infection. There was a decrease in granulocytes, with a relative lymphocytosis. The casts in the urine suggested some degree of the renal involvement which occurs in approximately 25 per cent of patients with typhoid. A lumbar puncture was done, but no signs of meningeal involvement were determined by that examination.

The child's throat was unusual in appearance, with a great deal of purulent material covering the greater part of the pharynx. The cut-down site on the leg was so angry in appearance as to suggest that the previous episode of typhoid fever might have responded to therapy and the infection at the site of the cut-down might be the cause of the infant's febrile reaction and signs of toxicity.

To follow this case in chronological sequence, I shall now call upon Dr. Lodwick to discuss the roentgenogram taken of the infant's chest.

Dr. Gwilym S. Lodwick, Radiology: The film we have of this child's chest is of a type that troubles the radiologist, for though the vascular markings are sufficiently increased to be quite noticeable, the change is not clearly a pneumonitis. Small, punctate densities are scattered throughout both lung fields. This finding was interpreted as interstitial pneumonitis, but it is possible that if this same finding were to be interpreted again, it might be described as no more than increased bronchovascular markings. Perhaps the change represents peribronchial infiltration.

Dr. MacQueen: When bronchial pneumonia occurs in a patient with typhoid fever, it is presumed that it is a secondary infection unrelated to the primary disease.

On the basis of the medical history, the physical findings, the laboratory reports and the Widal titer obtained prior to the patient's admission to University Hospitals, a working diagnosis of typhoid fever was made, and chloramphenicol therapy was started.

Considerable thought was given to this perplexing case prior to the establishment of a diagnosis. All who worked with the patient kept a reservation in their minds as to the acceptability of the diagnosis of typhoid fever, but no one could make any other disease entity conform to the clinical picture. The possibility that the therapy might be responsible for the atypical factors in the clinical signs was enough to quiet all dissenters.

On the second hospital day the child continued to have fever, and the skin lesions were unchanged. We were not surprised to obtain a throat culture of Pseudomonas aeruginosae, for the infant had received considerable antibiotic therapy.

When the episode of convulsion occurred on the third hospital day, it didn't seem likely that a meningitis could have occurred so quickly. We considered the possibility that a sudden rise in temperature had been the cause of a febrile convulsion, or that the convulsion might have been a manifestation of a severe toxemia. On that day the infant had eight large diarrheal stools, a circumstance that added further weight to our impression that we were dealing with a typhoid infection. During that day his general appearance progressed unfavorably, and cortisone was given. That evening, the child died without having shown any major change in his clinical signs or symptoms. Because there had been no sign of intestinal hemorrhage to explain his death, it seemed very likely that he had had a perforation and peritonitis.

Medical literature records that recurrence of typhoid fever commonly takes place during and after chloramphenicol therapy. Because chloramphenicol is bacteriostatic, we depend upon the medication to inhibit the growth of the organisms while body immunological processes develop to eliminate the infection. When these immunological processes prove inadequate, recurrence, together with perforation or hemorrhages, may occur as the organisms involve the intestinal lymph nodes. Recurrence of the infection most commonly takes place during the fourth week.

In review, this protocol concerns an infant whose

past medical history was not very well documented. In particular, the record was unfortunately incomplete as regards the therapy that the child had received. The laboratory reports, the clinical course and the physical findings suggested the diagnosis of typhoid fever, altered by antibiotic therapy.

Dr. Jack M. Layton, Pathology: At autopsy, there was erythematous mottling of the skin of the thighs, flanks and, to some extent, axillae (Figure 1). Exposure of the body cavities disclosed massive bilateral pleural effusion and ascites, about three-fourths of each pleural cavity being filled with fluid. The lungs were partially collapsed, and there were no adhesions. Serous atrophy of the subepicardial fat and petechiae in the serous membranes were observed.



Figure 1. Erythematous mottling of skin.

The skin lesions comprised hyperplasia of the basal layer of the epidermis, with a little scaling on the surface, with dilatation of superficial dermal capillaries in many areas and with narrowing in others as a result of proliferation of endothelial cells, and histiocytic and lymphocytic infiltrates in the perivascular connective tissues.

Figure 2 discloses the morbid anatomy of various organs. The lungs (upper left) were involved by the hemorrhagic, lobular type of pneumonia. The liver (upper right) was enlarged and congested. The kidney (left center) was also congested, particularly in the cortico-medullary region. The spleen (lower left) was not enlarged. The mesentery (lower right) contained enlarged, soft, bluish lymph nodes.

Figure 3 shows the intestines. Hyperemic, ovoid areas oriented in the longitudinal axis of the bowel involved Peyer's patches. Many were on the antimesenteric wall of the ileum. In the colon, ulcerated areas were more punctate than oval. The gross findings in the bowel would fit typhoid fever in many respects. However, the vascularity and hyperemia of the lesions would not support that diagnosis.

Figure 4 is a photomicrograph of one of those

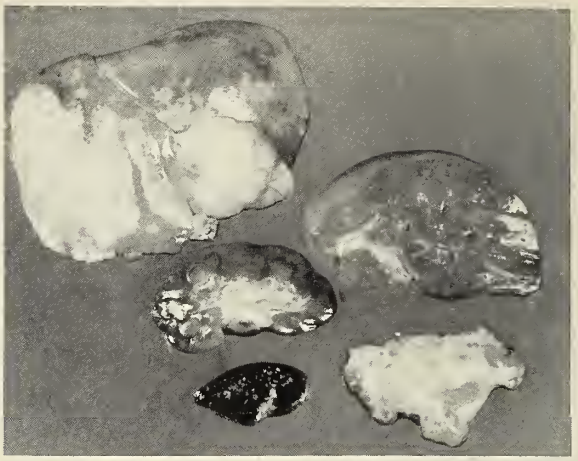


Figure 2.

lesions. The normal ileal mucosa is at the left, and it is elevated at the edge of an ulcerated Peyer's patch. Extension of cellulitis into the submucosa may be noted. This particular lesion suggests that we are not dealing with a case of typhoid fever, for in typhoid fever an area like this should be made up of a tremendous number of large proliferating mononuclear cells—almost a pure mononuclear response—with intense phagocytic activity on the part of the histiocytes. That picture is absent here.

The lymph nodes contained some remnants of germinal centers, but most nodes looked as if they had been perfused and the lymphocytes had been washed out. Another finding consisted of extravasated erythrocytes in certain parts of the nodes. These, in part, were responsible for the bluish color seen grossly. So far as typhoid fever is concerned, the striking feature, again, was the absence of large mononuclear cell proliferation. Thus, we have another indication that we are not dealing with a case of typhoid fever.

There was a severe, diffuse, acute interstitial pancreatitis, with necrotic and disintegrating pancreatic acini. Infiltrates of large mononuclear and plasma cells had replaced pancreatic tissue and had spread outside the lobules to involve interlobular and peri-pancreatic connective tissues.

There was bronchopneumonia, with peribronchial infiltrates. If you remember, Dr. Lodwick described the x-ray of the chest as showing that most of the cellulitis surrounded the bronchioles, rather than extended out into the parenchyma. The extravasated erythrocytes in the pulmonary tissue, with damage to vessels, were a manifestation of a process that we found in all tissues involved by the infection.

The normal-sized spleen, with only some congestion, is not the spleen of a typhoid-fever victim.

There was a low-grade meningitis, with lympho-

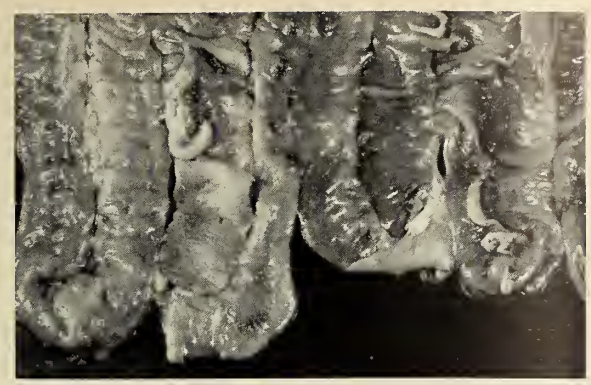


Figure 3.

cytes and histiocytes comprising the chief cellular elements of the exudate.

From the gross examination at the time of autopsy, we thought that this might be an atypical case of typhoid fever, but when we examined the tissue sections microscopically, we found no support for such a supposition. We did not then know the exact cause, but we had sent adequate samples of tissues and fluids to the Bacteriology Department so that a definitive diagnosis in this particular case might be made.

Dr. Albert P. McKee, Bacteriology: First, I shall quickly review the results of the antemortem specimens that we studied in this very interesting case. From the blood, nothing was cultured but Bacillus subtilis, and the significance of that microorganism certainly could be questioned. From the urine and cerebrospinal fluid, we obtained no organisms. The two stool specimens yielded no Salmonella or Shigella. There were some Pseudomonas aeruginosae in those cultures. It is not uncommon for us to encounter Pseudomonas aeruginosae in stool cultures where the cause remains undetermined, or where the cause is a viral enteritis, but one would not ordinarily regard these as the causative agents. Rather, he would merely report that the plate was negative for Salmonella and Shigella organisms. From the sputum, significant numbers of Pseudomonas aeruginosae were cultured, and we so reported. The throat swab cultured out Pseudomonas aeruginosae and Candida albicans.

The autopsy material that Dr. Layton supplied us was adequate, and from the blood and bile, we were able to get no organisms. We found the urine negative for both Salmonella and Shigella. The intestinal ulcer,. likewise, yielded no Salmonella or Shigella, but there was an abundance—almost a pure culture—of Pseudomonas aeruginosae. We obtained these results after washing the specimen carefully to free it from Escherichia coli and other organisms that might have contaminated it. In the pancreas, these same microorganisms were present in essentially a pure culture.

From the lung tissue Pseudomonas aeruginosae were very abundant. The liver, for some reason, yielded neither those nor any other significant organisms. A lymph node, similar to those shown by Dr. Layton, cultured out Pseudomonas aeruginosae.

As you know, two Widal examinations on the blood of the infant whom we are discussing had shown positive titers. A positive 1:160 titer had been reported from the local hospital, and a positive 1:160 titer had been obtained here at the State Hygenic Laboratory. Finally, a 1:320 titer was obtained in postmortem serum here. With the cooperation of Dr. Evans, of the State Hygenic Laboratory, we were able to obtain the last two of those serum specimens, and to run them against our known strains of Salmonella, as well as against the organism which we had isolated from lung tissue, namely Pseudomonas aeruginosa. We confirmed the State Hygenic Laboratory's titer against Salmonella typhosa, but found that the titer of the same patient's serum against the organism isolated was 1:5120. This was certainly a very strong titer against the only organism isolated.

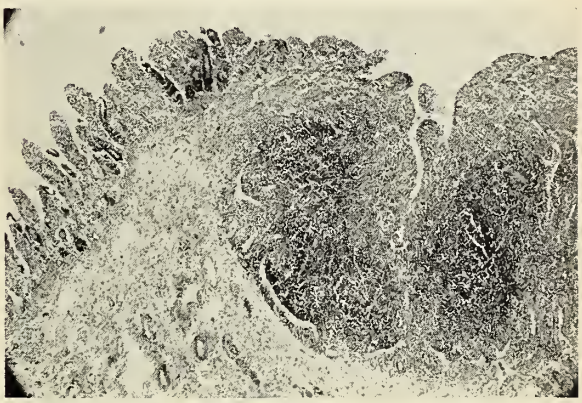


Figure 4.

Thus, at no time did we isolate Salmonella organisms. But, particularly from the postmortem material, we did isolate Pseudomonas aeruginosae. The patient's antibody titer, so far as I am concerned, showed clearly that the organism with which he did business was the Pseudomonas aeruginosa.

I should like to make a few general comments about this organism. Antigenically, it is heterologous—i.e., as far as somatic and flagellar antigens are concerned. The serologic crossing that confronted us can be explained, I think, by the fact that Pseudomonas aeruginosae and Salmonella typhosae have some antigens in common. One of the more important is the so-called Boivan-Mesrobeanu antigen, a glucolipid complex that was first described for the genus Salmonella and later for the genus Pseudomonas. The Pseudomonas aeruginosa also possesses a polysaccharide which is

nontoxic and nonantigenic. Certain "Z" strains of Pseudomonas aeruginosae are so very versatile as regards antigenicity that they can play the same role as Proteus OX19. That is, one can produce a rise in titer of the typhus fever patient's serum by using these strains. Pseudomonas aeruginosa produces a number of metabolites, some of which are very interesting. It has been said to produce no true exotoxin, but Wilson was able to show a hemolysin which was produced for red blood cells of human beings, sheep and guinea pigs. And since he was able to produce an antibody against it, there is reason to think that it may well be a true soluble toxin.

The endotoxin is essentially the glucolipid complex to which I have referred. This organism will also produce a toxic substance which will destroy white blood cells, that is to say, a leucocidin, a catalase or a proteinase which probably accounts for the liquefaction of tissues destroyed by the endotoxin previously referred to. It produces a creatinase. Hydrocyanic acid is produced in very small amounts, both in cultures and in tissues.

The pigments produced by this organism are also very interesting. The first is a fluorescin, which is water soluble, as well as a chloroform-insoluble pigment with a highly complex structure, $C_4H_7O_2N$. The second pigment is pyocanine, apparently a phenazine derivative, which is bluish green and soluble in both water and chloroform.

In addition, Pseudomonas aeruginosa produces pyocyanase—so named because it was at first believed to be an enzyme. However, it also has been proved to be a pigment, an alpha oxyphenazine. This pigment, in truth, is an antibiotic, and is poisonous for gram-positive bacteria and species from the following genera: Neisseria, Corynebacterium, Proteus, Brucella and Clostridium. The Germans used it rather successfully many years ago as an antibiotic in treating pyogenic infections, and one can even find some reports which say that it was used with some success in the treatment of tuberculosis. But it fell into disrepute rather quickly and was discarded because of its high toxicity.

This interesting bacterium also produces an oily substance that hasn't been chemically defined but is an antibiotic against Vibrio comma and has been used in studies of experimental disease. It is not as lowly a pathogen as Escherichia coli, for example, but rather has a moderate pathogenicity. Moderate doses of this organism are known to be lethal for rabbits, goats and guinea pigs, and when injected subcutaneously into guinea pigs, it will produce hemorrhagic edema at the site of the inoculation, metastatic abscesses in internal organs, punctate hemorrhages in the stomach and sometimes nephritis.

Those, I think, are the general characteristics of Pseudomonas aeruginosae, but I think there is one more important point about them that I'd like to mention. In the case under discussion today, we observed what might be considered a rising antibody titer—i.e., 1:160 to 1:320—against typhoid. Thus we are reminded that an organism may stimulate an antibody not only for itself but also for a related organism, though the heterologous titer is usually lower.

Dr. William B. Bean, Internal Medicine: Is there a dermatologist in the house who will explain what is meant by the diagnosis "livido reticulosis" which is quoted in the protocol? Could *reticulosis* be a misprint for *reticularis?*

Dr. MacQueen: The patient was seen and a note recorded in his chart. I think it was copied accurately.

Dr. Bean: Well, "livido reticulosis" might be interpreted as "proliferation of the purple net." I am reminded of one of my former teachers, Dr. Blankenhorn, who said he shared the dermatologists' confusion, but not their terminology.

Dr. Ian Maclean Smith, Internal Medicine: Recently I was asked to see a patient of Dr. Foman's who had been hospitalized with this disease. I think it might be worth mentioning that in that case as well, the disease was thought to be connected with ulceration around the site of a polyethylene tube. In many places these tubes are sterilized in zephiran, an antiseptic that is effective against many organisms, but Pseudomonas aeruginosa is an exception. Pseudomonas or B. pyocyaneus infection most commonly affects the skin.* In certain cases, the skin lesions can be almost diagnostic. We had such a case recently. The lesions are often punched out, circular and, later, gangrenous. The patient already had another generalized disease which brings out a second point about Pseudomonas infection—it often affects a host whose resistance has been greatly reduced.

The skin is most frequently affected, next most often the gut, third most often the heart, and fourth most often the central nervous system. This is the infection that occurs subsequent to spinal anesthesia, when infection occurs at all. It is highly fatal if the nervous-system involvement is secondary to an involvement elsewhere, such as in the skin. To be specific I can report that the mortality is 85 per cent when it is secondary to a generalized infection, and 55 per cent when it is not.

The drugs to which this infection might be expected to respond are sulfa, streptomycin, polymixin and neomycin. Unfortunately, however, many strains differ in their antibiotic sensitivities, and in each individual case one has to discover which medication can be used effectively. Polymixin is a good drug to start with. The local treatment of ulcers due to Pseudomonas can be accomplished

* Stanley, M. M.: Bacillus pyocyaneus infections. Am. J. Med., 2:253-277 and 347-363, (March, April) 1947.

with 10 per cent urethane, 1 per cent sulfa or 2 per cent phenoxetal.

Dr. E. D. Warner, Pathology: Was the death of this infant ascribed to typhoid on the death certificate?

Dr. MacQueen: This case was signed out as typhoid fever. We corresponded with the Iowa State Board of Health as to the corrected diagnosis.

Dr. Layton: I think I know why this patient died, but I'm not quite sure as regards the source of the infection. Do you know how much time elapsed between the cut-down and the performance of the first agglutination test?

Dr. MacQueen: When this child's second diarrheal episode began, he received antibiotic therapy. Because penicillin has been shown to be the commonest antibiotic causing patients to have an overgrowth of Pseudomonas aeruginosa infection, it is likely that it was the therapy used. But that need not necessarily be so, for Pseudomonas enterocolitis has been recorded following the use of both tetracycline and oxytetracycline antibiotics.

The exact manner in which bacteremia occurred cannot be determined. Perhaps the bacteremia occurred as a direct extension of the organisms from the Pseudomonas enterocolitis, or perhaps the organisms may have entered the body through the cut-down.

There is considerable statistical evidence to show that infections of the type we discussed today are becoming increasingly frequent. This rise in incidence seems to be related to the use of antibiotics. Bacteriologic laboratories have been tabulating the remarkable increase in the incidence of these organisms in general cultures ever since the use of antibiotic preparations began.

Dr. Layton: Well, that is one of the possible explanations, and it may be the correct one. I'd like to ask Dr. McKee how long he thinks it would take for a titer of 1:160 to develop following an infection.

Dr. McKee: That is a question that I can answer generally, but not specifically. Generally, if a patient has typhoid, we would anticipate a titer to be demonstrable in the third week of the disease, and we should not be surprised to find a little antibody as early as the beginning of the second week. With some other organisms (and I'm not speaking about Psuedomonas aeruginosae, for I don't know about them), we see titers rise very rapidly and can demonstrate them within four or five days in some instances. In this particular case, the important question concerns how long it would take a patient to develop a 1:160 titer against Salmonella typhosa, when Pseudomonas aeruginosa was the infecting agent. I just don't know the answer.

Dr. MacQueen: I believe Gaines and Landy reported in the JOURNAL OF BACTERIOLOGY last June* that by means of a hemoglutination procedure in which a lypho polysaccharide was used, they had been able to identify antibodies for Pseudomonas in the sera of normal individuals. In the first year of life, these antibodies occurred in approximately 20 per cent, but in the four-to-eight-year group, the incidence was almost 100 per cent. On the assumption that the body makes an antibody for Pseudomonas infections, could it be that when this infant had his severe infection he produced an unusually large number of antibodies that would account for the unusual cross response and the resultant positive Widal reaction?

Dr. McKee: I'd like to mention that there are optimum, minimum and maximum amounts of antigen involved in the production of antibodies. If there is too little, the host doesn't produce antibodies. If there is too much, according to Felton's experiments, the antibody-producing mechanism may actually be paralyzed. In between, there are quantities that have varying degrees of efficiency in stimulating the creation of antibodies. As regards the production of an antibody in an overwhelming infection, where there has been a very rapid onset, we might not be able to demonstrate an antibody before the child's death. I attempted to demonstrate the patient's antibody with the soluble antigen of this organism. The soluble antigen was prepared in a sonic vibrator. We used the complement-fixation test, and the titer was very low, running about 1:40 or 1:80. But the intact organism having a surface antigen for use in the agglutination apparently spared the antibodies very well. The titer in the latter test was very high.

Dr. MacQueen: Several lessons may be learned from this case. The most important seems to be that nowadays many of the therapies we use are capable of creating medical problems. One of the major ones resulting from the use of antibiotics is the conversion to pathogenicity of what normally would be non-pathogenic organisms.

SUMMARY OF NECROPSY FINDINGS

Dr. Layton: At autopsy, the blotchy erythematous rash persisted. Massive bilateral pleural effusion and ascites were encountered when the respective cavities were opened. Petechiae were present in serous membranes. Serous atrophy was present in epicardial fat. Both lungs were heavy, owing to congestion, edema and a hemorrhagic pneumonitis involving the middle, lower and apical segments of upper lobes on the right. The spleen was minimally enlarged, mostly due to congestion. A severe diffuse interstitial pancreatitis was encountered. In the small intestine, beginning in the jejunum, there were multiple, small, oval, hyperemic superficial ulcers, with slightly elevated, rolled, smooth edges. They increased in number

(Continued on page 277)

* Gaines, S., and Landy, M.: Prevalence of antibody to Pseudomonas in normal human sera. J. Bacteriol., 69:628-633, (June) 1955.

Coming Meetings

In State

May 24	**Allergy.** SUI College of Medicine, Iowa City
May 25	**Iowa Bar Assn. & ISMS Joint Meeting on Medico-legal Problems.** Hotel Fort Des Moines, Des Moines
June 18-22	**"Modern Concepts of Internal Medicine,"** Sponsored by American College of Physicians. SUI College of Medicine, Iowa City

Out of State

May 1-3	**Annual Meeting, State Medical Society of Wisconsin.** Milwaukee
May 1-18	**Pain Syndromes: Diagnosis & Treatment by Regional Block.** Grad. Sch. of Med., U. of Penna., Philadelphia
May 1-25	**Clinical Obstetrics.** Boston Lying-in Hospital, Boston
May 2-4	**Annual Meeting, Medical and Chirurgical Faculties of State of Maryland.** Baltimore
May 3-5	**American Goiter Association.** Drake Hotel, Chicago
May 4-25	**Advanced Urology for Specialists.** New York University, NYC
May 5-7	**Obstetrics for GP's.** U. of Minn. Center for Continuation Study, Minneapolis
May 6-9	**Annual Meeting, Oklahoma Medical Association.** Municipal Auditorium, Oklahoma City
May 7-9	**Application of Biochemistry to Pathology.** Armed Forces Institutes of Pathology, Washington
May 7-11	**Vaginal Approach to Pelvic Surgery.** Cook Co. Grad. Sch. Med., Chicago
May 7-11	**150th Annual Meeting, Medical Society of the State of New York.** Statler Hotel, NYC
May 7-11	**Allergy.** Montefiore Hotel, Pittsburgh
May 7-12	**Electrocardiography for GP's.** U. of Minn. Center for Continuation Study, Minneapolis
May 7-11	**Surgery of Colon and Rectum.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Internal Medicine.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Dermatology.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Clinical Uses of Radioisotopes.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**General and Surgical Obstetrics.** Cook Co. Grad. Sch. Med., Chicago
May 7-18	**Regional Anesthesiology.** New York University, NYC
May 7-18	**Diagnostic Radiology.** Cook Co. Grad. Sch. Med., Chicago
May 7-19	**Control of Pain by Nerve Block.** New York University, NYC
May 7-25	**Cardiology.** New York University, NYC
May 9-11	**Dermatology.** U. of Tennessee College of Medicine, Memphis
May 11-12	**Clinical and Public Health Aspects of Diabetes.** Sherman Hotel, Chicago
May 14-17	**Diseases of the Heart.** Armed Forces Institutes of Pathology, Washington
May 14-18	**Symposium on Dermatology & Syphilology.** New York University, NYC
May 14-19	**Proctology for GP's.** U. of Minn. Center for Continuation Study, Minneapolis
May 14-25	**Surgery of Colon & Rectum.** Cook Co. Grad. Sch. Med., Chicago
May 14-25	**Cystoscopy.** Cook Co. Grad. Sch. Med., Chicago
May 14-25	**Intensive Review Course in Pediatrics.** Cook Co. Grad. Sch. Med., Chicago
May 14-25	**Surgical Technic.** Cook Co. Grad Sch. Med., Chicago
May 14-25	**Gastroenterology.** Cook Co. Grad. Sch. Med., Chicago
May 14-June 8	**General Surgery.** Massachusetts General Hospital, Boston
May 17-19	**Management of Diabetes.** U. of Colo. Med. Center, Denver
May 18-20	**Annual Meeting and Scientific Session,** California Heart Association, LaPlaya Hotel, Carmel
May 21-22	**Clinical Cardiology.** Indiana University School of Medicine, Indianapolis
May 21-24	**51st Annual Meeting, American Trudeau Society.** Statler Hotel, NYC
May 21-25	**Radium Therapy.** Cook Co. Grad. Sch. Med., Chicago
May 21-25	**Clinical Bronchoscopy.** Cook Co. Grad. Sch. Med., Chicago
May 21-25	**Obstetrics & Gynecology Seminar.** Walter Reed Army Medical Center, Washington
May 21-25	**Anesthesiology: Endotracheal and Related Methods.** New York University, NYC
May 21-25	**General Surgery.** Cook Co. Grad. Sch. Med., Chicago
May 23	**Lung Diseases and Pulmonary Function.** Indiana University School of Medicine, Indianapolis
May 23-24	**Calcium and Phosphorus Metabolism.** Grad. Med. Sch. of Univ. of Pennsylvania, Philadelphia
May 24-26	**Surgery for Surgeons.** U. of Minn. Center for Continuation Study, Minneapolis
May 25-27	**Ionic (Acid Base) Balance and Water Balance.** Grad. Med. Sch. of Univ. of Pennsylvania, Philadelphia
May 28-June 1	**International Symposium on Venereal Diseases and Treponematoses.** Statler Hotel, Washington
May 28-June 1	**Pediatrics for Pediatricians.** Children's Hospital of Philadelphia
May 28-June 8	**Electrocardiographic Interpretation.** Michael Reese Hosp., Chicago
May 30-June 2	**Allergy in Relation to Otolaryngology.** Park Plaza Hotel, St. Louis
June 1-30	**Gynecology.** Free Hospital for Women, Boston
June 2	**Colorado Medical Alumni Clinics.** U. of Colo. Medical Center, Denver
June 4-6	**Practical Pediatric Hematology.** Children's Hospital of Philadelphia and the U. of Penna., Philadelphia
June 4-6	**National Cancer Conference,** sponsored by American Cancer Society and National Cancer Institute. Sheraton Cadillac Hotel, Detroit
June 4-6	**Dermatology for GP's.** U. of Minnesota Center for Continuation Study, Minneapolis
June 4-8	**Symposium on T-B & Other Pulmonary Diseases of Childhood.** New York University, NYC
June 4-8	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
June 4-8	**Thoracic Surgery.** Cook County Graduate School of Medicine, Chicago
June 4-13	**Medical Care of Atomic Casualties.** Walter Reed Army Medical Center, Washington, D. C.
June 4-15	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
June 4-15	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
June 4-29	**Course 2—General Surgery.** Cook County Graduate School of Medicine, Chicago
June 6-7	**Carbohydrate and Fat Metabolism.** University of Pennsylvania, Philadelphia
June 7-8	**Blood Group Incompatabilities & Erythroblastosis Fetalis.** Children's Hospital of Philadelphia and U. of Penna., Philadelphia
June 7-10	**Twenty-second Annual Meeting, American College of Chest Physicians.** Chicago
June 11-13	**Orthopedics in General Practice.** New York University, NYC
June 11-15	**Annual Meeting, American Medical Association.** Chicago
June 11-15	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
June 11-15	**Hematology.** Cook County Graduate School of Medicine, Chicago
June 11-15	**Esophageal Surgery.** Cook County Graduate School of Medicine, Chicago
June 11-20	**Pediatrics.** Massachusetts General Hospital, Boston

(Continued on page xxx)



DOCTOR'S DAY

On March 30, 1956, the doctors of Des Moines and of many other towns throughout the state received very much of a surprise. A member of the county Medical Auxiliary pinned a red carnation upon the lapel of each physician as he entered the hospital. Through a conditioned reflex, each doctor then reached for his wallet in the belief that a contribution was expected. Then came his second and even greater surprise. He, along with other physicians, was being decorated, for it was Doctor's Day.

March 30, of this and forthcoming years, has been selected for the observance because it was on that day in 1842 that a physician in Georgia, Dr. Crawford Long, initiated the technic of anesthesia, thereby making what most people regard as one of the ten greatest contributions to medicine and to human welfare. Dr. Long's accomplishment is to be regarded as a symbol of the concern that all doctors have for the relief of pain.

This signal honor has another significance as well. It typifies our wives' fidelity to us—God bless them! For quite a few years, the Medical Auxiliary members throughout the country have devoted themselves to the task of gaining recognition for us, thus making our work both easier and pleasanter. As is their wont, they have achieved their objective.

Let us as doctors prove worthy of their efforts in our behalf. It is very easy for us to take for granted the many things that they do so that our work may proceed effectively and uninterruptedly. Their advice and constant vigilance in helping us maintain a high standard of medical care have seldom been adequately rewarded. Their day-to-day forbearance and thoughtfulness, their cheerfully answering the telephone, their placating our demanding patients, their keeping dinner warm long after meal-time when emergencies have kept us at work and their helping us at our offices when the need has arisen—all of these are other things for which *we* should set aside at least one day each year to honor *them.*

Thank you, Auxiliary members. Even though each of us would have preferred to have his wife wear his carnation, since it is she whose services are less likely to gain recognition, we are grateful indeed for the honor you have done us.

MEDICAL ENIGMAS

Much has been accomplished in medicine since the time when the older ones of us spent days and perhaps weeks studying the etiology, pathology and treatment of typhoid, a disease from which we hadn't seen a patient suffering, and when we were told by our instructors, in all seriousness, that a patient in diabetic coma was a "dead duck." Yes, we are proud of, and are thankful for, the many, many advances that modern medicine has made. But lest we become too smug, let us think of some of the ailments that we haven't conquered.

There is the common cold. How we blush when our ever-loyal clientele ask us for help in preventing their colds from becoming worse. Perhaps we might suggest some of the symptomatic gadgets and aids. But aren't all of them ballyhooed incessantly by all manner of pill-peddlers, and indeed, is there any of them that has real merit? Of course if the patient's cold accidentally develops into pneumonia, we then, verily, can do something and get results.

Now that the life span has increased, benign hypertrophy of the prostate is a scourge to perhaps half of all men reaching middle age. It is true that we have improved our methods of caring for the results of that condition, but certainly there is need for augmented research into its etiology! Why does the disease befall one aging gentleman, but not the next? A very good man who is a staff member of a renowned clinic recently remarked in a private conversation that proof has never been offered for any of the many theories regarding its cause. And more alarmingly, he went on to say, "I suspect that this is one of the fields where we can expect little if any progress ever to be made." Can it be possible that attempts to find the etiologic agent and develop a preventive are being abandoned, now that surgical treatment of the condition has been made efficient?

It would seem that more of our patients have the various anemias than ever before. Many of them are not old people. Can it be that our foods are so grown and so processed that people are failing to get the mineral elements and nutritional values from them that their forebears got from home-grown and home-prepared foods?

Despite the fact that much has been done in a prophylactic way and in the improvement of care to protect the rheumatic-fever patient, heart disease is still the great destroyer. People are learning how to live both before and after acquiring heart trouble, but as yet we are unable with any certainty to prevent them from acquiring it, and except in the types of cases that are surgically remediable, we haven't yet found a way of curing it. We know that research is very active in this field.

Cancer is still unconquered, but here also research is very active, and we have reason to expect that some new development will occur short-


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ACHROMYCIN*

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January and his associates[1] have written on the use of tetracycline (ACHROMYCIN) to treat 118 patients having various infections, most of them respiratory, including acute pharyngitis and tonsillitis, otitis media, sinusitis, acute and chronic bronchitis, asthmatic bronchitis, bronchiectasis, bronchial pneumonia, and lobar pneumonia. Response was judged good or satisfactory in more than 84% of the total cases.

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[1]January, H. L. et al: Clinical experience with tetracycline. *Antibiotics Annual* 1954-55, p. 625.

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ly to help in controlling it. Perhaps the remedy will come as suddenly as did insulin, penicillin or poliomyelitis vaccine.

We clinicians are deeply appreciative of the new modalities and technics that have been developed for curing disease, but we hope that researchers will continue with their work. There still are many common diseases that we can treat only symptomatically and not too successfully.

BROADENING CANCER RESEARCH

Research sponsored by the Tobacco Industry Research Committee, under the able direction of Dr. Clarence Cook Little, will not only continue but will be enlarged during 1956. An allotment of $1,500,000 has once more been made for this purpose, and $35,000 of that amount is to be broken into $500 fellowships for medical students who wish to spend "off-term" time working in the laboratories of experienced scientists.

Many research activities were carried out during 1955. These included studies of the influence of psychological stress on cancer in mice; tissue cultures in connection with the poliomyelitis chemotherapy program; the biology of experimental cancer; social phenomena in Negroes suffering from tuberculosis; irregularities of the heart beat, with special reference to nicotine; glutamic acid and related compounds in the plasma of epileptic and non-epileptic patients; characteristics of a newly discovered virus as it is transferred into animals and in tissue culture; methods for demonstrating venous drainage of the heart; and alterations of venous drainage in congestive heart failure. Dr. Little says that the reports of progress made in 1955 are encouraging.

Whether or not the results of these investigations exculpate their products, it now seems certain that the tobacco people will have reason to congratulate themselves on their expenditures for medical research. Disbursements are being made to scientists engaged in basic investigations, a group of people whom philanthropists have been inclined to neglect up to now. And certainly the tobacco manufacturers are entitled to some credit for simultaneously subsidizing medical students and encouraging them to interest themselves, temporarily at least, in basic research in the experimental or clinical sciences.

ALLERGY MEETING POSTPONED

The date of the forthcoming postgraduate course in allergy to be held at the SUI College of Medicine under the sponsorship of the Allergy Section of the Department of Internal Medicine has been postponed from May 16 to May 24, 1956.

A.C.P. SHORT COURSE AT IOWA CITY

On June 18-22, a short course entitled "Modern Concepts in Internal Medicine" will be conducted at the College of Medicine of the State University of Iowa under the sponsorship of the American College of Physicians. Full details can be secured through the office of the sponsoring organization or from Dr. W. B. Bean, head, Department of Internal Medicine, SUI.

A moderate amount of emphasis will be placed on cardiology and on recent improvements of treatment and diagnosis in the general fields of internal medicine. The fee is $30 for A.C.P. members, and $60 for other physicians. The principal items on the program are as follows:

Monday, June 18

9:00 a.m. "Welcome"—Dr. W. L. Bierring, Professor Emeritus

9:10 "Orientation"—Dr. Ian Maclean Smith, Assistant Professor

9:20 "Epidemiology of Arteriosclerosis"—Dr. Ancel Keys, University of Minnesota, Minneapolis

11:00 "Certain New Concepts of Electrocardiography"—Dr. Lewis January, Professor

11:30 "Clinical Ballistocardiography"—Dr. Jack M. Martt, Assistant Professor

2:00 p.m. TECHNICAL AIDS IN THE DIAGNOSIS OF DIFFICULT CARDIAC LESIONS
Moderator: Dr. J. W. Culbertson, Professor. Round table participants: Dr. E. F. VanEpps, Professor of Radiology; Dr. January; Dr. Martt; Dr. E. O. Thielen, Assistant Professor; and Dr. John B. Wild, Assistant Professor

3:45 "Surgery for Septal Defects"—Dr. J. Ehrenhaft, Professor of Surgery

4:30 CLINIC ON HYPERTENSION
Moderator: Dr. W. M. Kirkendall, Clinical Associate Professor, VA. Participants: Dr. Culbertson; Dr. R. Meyers, Professor of Surgery

7:30 "Radioisotopes in Clinical Medicine"—Dr. Richard E. Peterson, Clinical Assistant Professor, VA

8:15 CLINIC ON CONSERVATIVE TREATMENT OF ACUTE RENAL FAILURE
Participants: Dr. Kirkendall; Dr. Martt; and Dr. Richard Smith, Resident, VA

Tuesday, June 19

9:00 a.m. "Treatment of Thyrotoxicosis With Radioiodine"—Dr. E. L. DeGowin, Professor

10:00 "Degenerative Disease Accompanying Diabetes"—Dr. Robert C. Hardin, Professor

10:45 "Management of the Person With Diabetes"—Dr. B. I. Lewis, Associate Professor

11:10 "Management of Diabetes"—Dr. Hardin

11:40 Lecture—Dr. Edgar Gordon, Department of Medicine, University of Wisconsin

2:00 p.m. CLINIC ON ENDOCRINE CASES

Participants: Drs. Gordon, DeGowin and Hardin

3:00 "The Treatment of Arthritis"—Dr. W. D. Paul, Professor, Rehabilitation Unit

4:00 "Dermatologic Problems of Interest to the Internist; Presentation of Cases"—Dr. Christian E. Radcliffe, Assistant Professor of Dermatology

7:30 SHORT DISCUSSIONS, DEMONSTRATIONS, QUESTIONS AND ANSWERS (at the Veterans Administration Hospital)

Wednesday, June 20

9:00 a.m. "A Practical Method of Maintenance of Fluid and Electrolyte Balance"—Dr. DeGowin

9:45 "Treatment of the Anemias"—Dr. R. F. Sheets, Associate Professor, and Dr. H. E. Hamilton, Associate Professor

10:45 "Diagnosis and Treatment of Iron Deficiency Anemia"—Dr. Carl V. Moore, Washington University, St. Louis

11:45 "Treatment of the Leukemias and Related Diseases"—Dr. Willis M. Fowler, Professor

2:00 p.m. "Current Concepts of the Pathogenesis of Idiopathic Thrombocytopenic Purpura"—Dr. Moore

2:45 COAGULATION CONFERENCE
Moderator: Dr. Jack R. Carter, Associate Professor of Pathology. Participants: Dr. E. D. Warner, Professor of Pathology; Dr. William P. Jolly, Instructor; and Dr. Robert C. Hickey, Associate Professor of Surgery

3:45 "Osler's Disease"—Dr. William B. Bean, Professor

4:30 HEMATOLOGY CLINIC
Participants: Dr. Moore; Dr. Fowler; Dr. Sheets; and Dr. Hamilton

Thursday, June 21

9:00 a.m. "Physiologic Testing of Pulmonary Function"—Dr. George N. Bedell, Assistant Professor

9:45 "Diagnosis and Treatment of Bronchial Asthma"—Dr. Paul M. Seebohm, Associate Professor

10:45 "Hyperventilation Syndromes; Clinical and Physiologic Features"—Dr. Lewis

11:15 ROUND TABLE CONFERENCE ON TREATMENT OF PULMONARY TUBERCULOSIS
Moderator: Dr. A. Goldman, Washington University, St. Louis. Participants: Dr. W. M. Spear, Oakdale Sanitorium; Dr. Isaac Horowitz, Clinical Instructor; Dr. Gray; and Dr. I. M. Smith

2:00 p.m. "Non-tuberculous Granulomatous Lesions in the Chest"—Dr. Goldman

3:00 "Diagnosis and Treatment of Pulmonary Emphysema"—Dr. Bedell

3:45 "Rare Diseases"—Dr. Bean

4:30 CLINIC ON CHRONIC PULMONARY DISEASE
Participants: Drs. Goldman, Seebohm and Bedell

Banquet Jefferson Hotel

Friday, June 22

9:00 a.m. "Peptic Ulcer"—Dr. Walter L. Palmer, University of Chicago

9:45 "Diagnostic Methods in Gastroenterology"—Dr. G. H. M. Thornton, Assistant Professor

10:30 ROUND TABLE CONFERENCE ON ULCERATIVE COLITIS
Moderator: Dr. Palmer. Participants: Dr. Thornton; Dr. R. T. Tidrick, Professor of Surgery; and Dr. Lewis

11:15 CLINIC ON GASTROINTESTINAL PROBLEMS
Participants: Dr. Palmer; Dr. Thornton; Dr. R. D. Eckhardt, Clinical Assistant Professor, VA; and Dr. S. E. Ziffren, Professor of Surgery

2:00 p.m. "The Viral Encephalitides"—Dr. A. L. Sahs, Professor of Neurology

2:30 ROUND TABLE CONFERENCE ON THE COMMON INFECTIOUS DISEASES
Moderator: Dr. Paul. Participants: Dr. F. H. Top, Professor of Hygiene and Preventive Medicine; and Dr. I. M. Smith

3:45 "Amebiasis"—Dr. Hamilton

4:15 "Problems in the Treatment of Chronic Infection"—Dr. I. M. Smith

5:00 "Infectious Hepatitis"—Dr. Eckhardt

(Where not otherwise indicated, the men named are staff members in the SUI Department of Internal Medicine.)

NATIONAL FOUNDATION MAKES SUGGESTIONS

The current recommendations of the National Foundation for Infantile Paralysis regarding the use of Salk vaccine are as follows:

1. Do not give "booster" shots between now and July 1. There is minimal risk—if, in fact, any at all—in giving primary or booster shots *during* the polio season.

2. Use all available vaccine immediately. Do not save it for "second shots," even though a sterilely punctured vial of vaccine can be kept under refrigeration for an indefinite length of time without impairing either safety or potency of the vaccine.

3. The increasing supply of vaccine should be depended upon for second injections in 1956. The exact interval recommended between the first and second doses is not critical, so long as it is not *less* than two weeks. In fact, longer intervals seem to be advantageous. Therefore, one can give the second dose at any time without losing the benefit of the first.

4. However, the third dose should be given not less than seven months after the second, but may be given at any length of time thereafter.

Ford Foundation Checks Received

FORD FOUNDATION CHECKS RECEIVED

Checks received by 22 Iowa hospitals during April represented half of the total grants made them recently by the Ford Foundation. These grants, made with the purpose of focusing attention on the urgent and continuing need for community support of voluntary, non-profit hospitals, were determined on the basis of patient-days of service and number of births in each hospital. All of the institutions are free to utilize their funds to increase and improve vital services which they are performing for their communities. The Iowa hospitals which benefited and the amounts of their checks are as follows:

Location	*Hospital*	*Initial Payment Representing One-Half Total Grant*
Algona	Saint Ann Hospital	$ 6,450
Cedar Rapids	Mercy Hospital	48,900
Council Bluffs	Mercy Hospital	43,400
	St. Bernard's Hospital	50,900
Davenport	St. Luke's Hospital	37,500
Des Moines	Iowa Lutheran Hospital	52,250
	Iowa Methodist Hospital	102,550
	Mercy Hospital	62,000
Dubuque	Xavier Hospital	33,650
Estherville	Holy Family Hospital	17,600
Fort Dodge	Lutheran Hospital of Fort Dodge	46,500
Fort Madison	Sacred Heart Hospital	18,750
Hampton	Lutheran Hospital	8,400
Keokuk	Graham Hospital	24,050
	St. Joseph's Hospital	27,050
Marshalltown	Evangelical Hospital	31,100
	Mercy Hospital	18,550
Sac City	Loring Hospital	6,250
Shenandoah	Hand Community Hospital	7,600
Sioux City	Lutheran Hospital	28,950
	Methodist Hospital	37,250
	St. Vincent's Hospital	39,550
	State Total	$749,200



THE FIRST PAYMENT: More than 1,000 hospitals in every state in the U. S. recently received their first checks from The Ford Foundation in the initial payment of the Foundation's $200,000,000 program to help the some 3,500 privately supported hospitals improve and strengthen their services to the public.
The grant was announced in December. With the checks, shown here ready for mailing, are Dr. Edwin L. Crosby, director of the American Hospital Association (left), and Dyke Brown, vice president of The Ford Foundation who holds additional checks that will go to Alaska, Hawaii and Puerto Rico.

A Start Toward the Prevention of Highway Accidents

W. P. Pelz, M.D.

CHARLES CITY

A major problem confronting the medical profession, along with the rest of the nation, is the ever increasing frequency of automobile accidents on highways and city streets. Physicians, together with the lay people who assist them, have improved transportation of the injured and have improved surgical and medical rehabilitation so as to save the lives and, in some instances, restore the faculties of people who have escaped being killed outright. But neither they nor anyone else has accomplished much in preventing mishaps.

Improvement of roads has done little to reduce the accident rate. Speed laws have been likewise ineffective. But two major factors remain to be worked on—the automobiles and the drivers. Cars can be made safer, and incompetent drivers can be singled out and denied the privilege of the road.

OUR CARS CAN BE IMPROVED

Automobile manufacturers, it would seem, should be aware that safety requires them to build a maximum of certain qualities into their vehicles —maneuverability, braking power, sturdiness of construction and road-holding ability. But what are the goals that they have chosen for themselves? —increased power, a lower and longer silhouette, and greater width.

Increased power has two effects: more rapid acceleration and increased speed. Once, it took 20 to 30 seconds for a car to reach a speed of 60 mph. from a standing start. Now it takes from 10 to 14 seconds. In the years before 1950, there were only three American cars that could travel an honest 100 mph., and they took several minutes to reach that speed. Now there are many such cars, and one manufacturer claims that his will accelerate from 0 to 100 mph. in less than 30 seconds.

The problem that a normal individual has in controlling such an automobile becomes apparent when we examine some statistics. Since such a person's reaction time is ¾ sec., at a speed of no more than 60 mph. he travels the length of a city block between the time when he realizes the necessity for stopping and the time when he actually steps on the brake pedal. And he traverses the length of another block while the brakes are bringing the car to a stop. At a speed of 100 mph. he requires a proportionately greater distance in which to come to a halt.

Besides providing transporation, automobiles now serve as symbols of their owners' financial attainments. The symbolism is rather deceptive, for many people drive expensive makes that they haven't paid for. But the public continues to believe in it, and the automobile manufacturers outdo one another and indeed themselves in making cars longer and lower and wider and more powerful each year. It seems not to bother anyone that cars take more room at the curb and in the garage, and take wider arcs in which to turn.

To make matters worse, tires are bigger and wider, and are scantily inflated. To lower the center of gravity, designers have required that the diameter of the tire be reduced, and to compensate for the difficulty in steering the clumsier car equipped with wider low-pressure tires, they reduce the steering ratio, thereby making the car less responsive to a twist of the steering wheel. In consequence, to avoid a pedestrian, an animal, a car or some other object that suddenly appears before him, the driver of a new car has to turn his steering wheel farther than does the driver of an older vehicle, and to do so takes him a longer time. For all practical purposes, power steering helps him turn more quickly only when his car is standing still, or virtually so.

The road-holding ability of a car depends upon the rigidity of its chassis and the adequacy of its springing, but instead of spending money on those features, manufacturers spend it for chrome decorations and other superficialities that will please the buyer and impress his neighbors. The reduction in the diameter of wheels is making it increasingly difficult for manufacturers to provide adequate braking power. Brake efficiency depends upon two factors: amount of brake lining and efficiency of heat dissipation. With a smaller wheel, one can't have brake drums large enough to provide an adequate friction area. The disc-type brake that may eventually solve this problem is still in the process of development, and power brakes, rather than increasing brake power, merely lessen the pedal pressure that the driver must apply to activate whatever brakes his car has.



Lately, safety belts have been advocated and have been offered at least as optional and extra-cost equipment on some automobiles. Unfortunate-

ly, they aren't so complete a protection as the public has been led to believe, for as aviation experience has demonstrated, shoulder straps are also required if the upper parts of one's body are to be protected from injury.

DRIVER SCREENING SHOULD BE RIGOROUS

Now, let us consider what can be done to make sure that poor drivers are kept off the roads. At present, too many handicapped persons are driving cars. Others, though they have adequate physical and mental qualifications, have been poorly taught. Compulsory physical examinations and the imposition of rigid standards for licensing will correct the first of those difficulties; stepping up our driver-instruction programs in high schools will provide at least a partial remedy for the other.

The Army and the National Guard set standards for reaction time and depth perception, and if tests demonstrate that an examinee is below par in either category, he isn't permitted to drive a military vehicle. Similar standards should be established, and similar tests should be given to civilian applicants for drivers' licenses. And the tests should be devised and the results interpreted by properly trained physicians, so that mistakes can be avoided. It also will be necessary for doctors to check applicants for mental ability. Drivers who have been involved in a certain number of accidents should be reexamined, for some of them may have acquired disabilities since they were licensed, and others of them may be accident-prone.

SUI SURVEYS FARM HEALTH

Seven thousand Iowa farmers will receive questionnaires concerning their health early in May from the State University of Iowa's Institute of Agricultural Medicine. The survey also will include questions about farm accidents.

Professor Clyde M. Berry, associate director of the Institute, said that the purpose of the questionnaire is to determine where the greatest need for attention lies in the Iowa rural health picture. "We want to concentrate our first efforts on the most pressing problems," he said, "and the information obtained from this questionnaire will serve as our initial guide."

Announcement of plans to survey the farmers came during a joint meeting of the Iowa Public Health Association, the Iowa Tuberculosis and Health Association, the Iowa Trudeau Society and the Iowa Heart Associations. Professor Berry participated in a panel on "Looking Ahead in Public Health in Iowa."

The Institute was established at the University's college of medicine last fall to conduct medical and social research on diseases to which farm people are especially susceptible, and to develop new preventive measures to safeguard the farmer's health. The first of its kind in the nation, the Institute was set up with a $109,000 grant from the Kellogg Foundation.

Berry told the audience of health workers, physicians and nurses that the farmer, himself is the one who can best tell us what his medical problems are. "And we hope," he said, "that the farmers will realize when they receive the questionnaires that they are designed with just one object in mind: to improve the health picture for the farmer and all of his family."

The speaker said the one-page questionnaires can be filled out "in a matter of minutes." Questions will include:

During the past year, what sickness caused you and your family the most trouble?

What accidents caused you the most trouble during the past year?

During the past year, did you or anyone on your place feel sick or have a bad reaction that you think might have come from using some chemical?

Did anyone have a bad reaction to some dust, pollen, plant or other substance?

The last two questions stem from the Institute's concern with skin and respiratory diseases, which are becoming increasingly common as more chemicals are used in farming.

DOCTORS ALSO WILL BE QUESTIONED

Professor Berry said the information obtained from the questionnaires to farmers will be supplemented by data which the Institute hopes to secure from doctors throughout the state. A physician in each of Iowa's counties will receive a one-page questionnaire at about the same time the farmers receive theirs.

Among the questions asked of doctors will be: "What single farm-connected illness causes patients in your county or locality the most trouble?" and "What type of farm-connected accident does the most damage in your locality?"

Dr. Franklin H. Top, professor and head of hygiene and preventive medicine at SUI and director of the Institute, says research findings and recommendations of the Institute staff regarding prevention of disease and injury will be made available to physicians throughout the state for application in their treatment and counselling of rural patients. The Institute also plans to work toward the development of new methods of health education for rural populations so that information growing out of the research may reach farm families in understandable terms.

President's Page

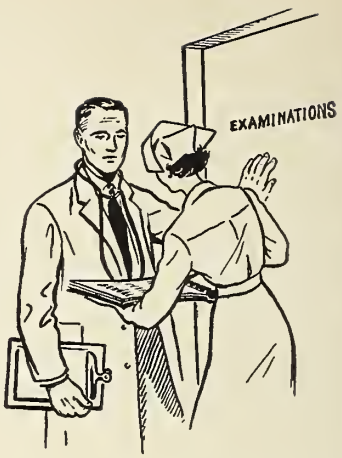
On Friday, May 25, at the Fort Des Moines Hotel, in Des Moines, The Iowa Bar Association and the Iowa State Medical Society will join in sponsoring a workshop on medico-legal problems. The Legal Department of the AMA is cooperating in the program plans.

During the past year, a joint liaison committee of the two associations was formed to develop a program of interprofessional activities. Our two professions have many common problems, and national district meetings were held during the past year under the sponsorship of the AMA.

Panel discussions of medical and legal subjects have proved to be very worthwhile. A detailed program will be sent to you at a later date, and as members of the ISMS, all of you are urged to reserve May 25 and to attend this joint meeting.

Wendell Downing, M.D.
President

THE DOCTOR'S BUSINESS



Your Staff Must Be Organized

MILLARD K. MILLS
WATERLOO

Organization of work in a one-girl office depends largely upon the girl herself. She must learn to perform her duties as efficiently as possible, and to do so, she must learn the fastest and easiest way to do things. Since there are so many interruptions in a medical office, it is often difficult for her to follow any prescribed routine. Nevertheless, it is important for her to aim at completing certain duties at specified times.

For instance, in the morning she should take care of those tasks which require closest attention. Usually you are out of the office for at least part of the morning, and she will consequently have fewer interruptions then. Telephone work, typing, correspondence, case histories, etc., can be handled much more easily when patients are not within hearing distance and are not constantly interrupting her. Since deposits should be made daily, her work on the ledgers should usually be done in the morning so that she can take receipts to the bank at noon.

She should keep as much as possible of her afternoon time free, so that she can assist you, and so that she can pay attention to incoming and departing patients during those hours. Filing and posting can sometimes be sandwiched among her afternoon duties, but that work must be completed not later than noon of the following day.

In offices where several girls are employed, there is frequently least organization. The doctors' having failed to make one of them the office manager or to delegate definite duties to each of them is frequently the explanation. Whoever is handy greets patients, answers the phone, takes payments, etc. As a result, the physicians and the girls take many unnecessary steps and waste time in determining what has or has not been done. In addition, there is little sense of accomplishment derived from the completion of specific tasks. Further, it is difficult for the doctors to give credit or place blame, for no one has had any definite area of responsibility.

Mr. Mills is general manager of Professional Management.

Although it is impractical that one girl should be assigned to greet all patients, or that one girl should always have to answer the phone, etc., it is best that one girl should have primary responsibility for each of those activities. Surely the girls must work together as a team, but not to the point of having no individual responsibilities.

Seniority often determines who is supervisor in a medical office, but however the office manager may have been selected, she should be responsible for seeing that all work is completed. The larger the office, the more important the office manager's job becomes. We do not think it practical for the average medical office of four to eight men to employ a full-time "sitting" manager (one who spends his or her time analyzing and studying the group's problems). What is more desirable is a "working" manager, one who oversees and understands the entire office, but who can fill in at any job. This type of office manager should be able to do every job in the office as well as or better than the girl to whom it has been assigned (except, perhaps, as regards the speed that comes from repetition of a task). Only thus will she be accorded the respect that is essential to the maintenance of her authority.

Placing a woman in charge of women has many advantages. A woman is more likely to understand the problems of office work, since it is likely that she has done all of the tasks herself, at some time or other. She is best at evaluating the ability and work of the other girls, and can see that proper credit or assistance is given. However, she must be the type of person who makes those under her feel that she is working with them and for them, as well as for you, or she will never have their complete cooperation.

If your assistants are finding it difficult to keep up with their work, the answer may lie in poor organization. If you show them how to organize their work, give them definite duties and see that they have proper supervision, your office should begin functioning smoothly and efficiently.

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

EXCITABILITY OF THE HEART, by *Chandler McC. Brooks*, M.D. (New York, Grune & Stratton, 1955. $6.50).

THE NEUROSES IN CLINICAL PRACTICE, by *Henry P. Laughlin*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $12.50).

THERAPY OF FUNGUS DISEASES, ed. by *Thomas H. Sternberg*, M.D., and *Victory D. Newcomer*, M.D. (Boston, Little, Brown and Company, 1955. $7.50).

THE TRUTH ABOUT CANCER, by *Charles S. Cameron*, M.D. (New York, Prentice-Hall, Inc., 1956. $4.95).

ELECTROCARDIOGRAPHY, by *Louis Wolff*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $7.00).

CLINICAL RECOGNITION AND MANAGEMENT OF DISTURBANCES OF BODY FLUIDS, SECOND EDITION, by *John H. Bland*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $11.50).

LABORATORY TESTS, by *Solomon Garb*, M.D. (New York, Springer Publishing Company, 1956. $2.00).

BELLEVUE IS MY HOME, by *Salvatore R. Cutolo*, M.D. (New York, Doubleday & Co., 1956. $4.00).

BOOK REVIEWS

ADVANCES IN PEDIATRICS, Vol. VIII, ed. by *S. Z. Levine*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $8.00).

The current volume of ADVANCES IN PEDIATRICS consists of seven essays on a variety of subjects. In the lead article, on the etiology of infantile diarrhea, Horace L. Hodes puts emphasis upon the relationship between certain types of E. coli and the disease, and he urges bacteriologic identification and specific therapy.

Samuel Z. Levine *et al.* present an etiological classification and review of isosexual precocity in boys, including a case of gonadotrophin-producing teratoma. They further discuss the differential diagnosis and the management.

Sarcoidosis in childhood is reviewed by John P. McGovern and Doris H. Merritt. They cite 3,000 reported cases from 850 references. Of those cases, 104 occurred in children, and the authors add nine cases of their own.

A very interesting essay by George M. Wheatley concerns the prevention of accidents in children. It is startling to learn that accidents now constitute the commonest cause of death after infancy, accounting for the deaths of 11,000 children aged 1-14 years in the United States and Canada annually. Further, in the pre-school group, accidents kill more than twice as many as do pertussis, measles, scarlet fever, diphtheria, dysentery, tuberculosis and poliomyelitis combined.

Herbert C. Miller discusses the offspring of diabetic and pre-diabetic mothers. Margaret H. D. Smith presents a study of subdural lesions in childhood, making special reference to infection processes. The last essay is a review of the causes of mental deficiency and their management by Herman Yannett.

Thus, in this volume we have an array of star authors and varied subjects. The essays serve as a good and concise review of the topics with which they deal, and they should be of especial interest to the practicing pediatrician.—*M. E. Alberts*, M.D.

EXPERIMENTAL TUBERCULOSIS, A CIBA FOUNDATION SYMPOSIUM, ed. by *G. E. W. Wolstenholme* and *M. P. Cameron* (Boston, Little, Brown and Company, 1955. $9.00).

and

DISEASE OF THE CHEST, by *H. Corwin Hinshaw*, M.D., and *L. Henry Garland*, M.B. (Philadelphia, W. B. Saunders Company, 1956. $15.00).

These two volumes, dealing with related subject matter, have been published so nearly simultaneously that they seem to invite comparison. EXPERIMENTAL TUBERCULOSIS records the reports that were read at a symposium on "the tubercle bacillus and the reactions of the host tissue," during a three-day session in October, 1954. At that meeting, a group of workers in basic problems in fundamental fields met to exchange information. The formal papers and the sharp but friendly exchanges of critical comment that supplemented the presentations demonstrate the efforts of the inquiring scientist at illuminating even a small facet of a problem. Furthermore, this was an international undertaking.

The topics discussed were, first, the chemical constituents of the tubercle bacillus. Analyses of the proteins, fats and polysaccharides that make up the organism were reported, and an effort was made to relate host reactions to these moities. Next, a group delved into the concepts of hypersensitivity, desensitization and immunity. And finally, some work relating to chemotherapy and cortisone effect was presented to round out the account.

Thus, in the volume entitled EXPERIMENTAL TUBERCULOSIS the studies are mostly of a technically exacting nature, and are not readily comprehensible. The reader who does not have an easy familiarity with the methods and concepts of contemporary biochemistry, tissue culture and sensitivity responses may quickly find himself beyond his depth. This reviewer had that experience. Nevertheless, there is merit in the project and in the publication of a detailed report containing the papers that were read and the comments that were made upon them. The volume will serve as reference material for those who wish to explore the fresh discoveries in the field of tuberculosis.

A small "addendum on experimental leprosy" aspiring to the same kind of treatment of that subject completes the symposium.

By contrast, most physicians will fine the handsome new volume by Hinshaw and Garland entitled DISEASES OF THE CHEST a somewhat more useful book. It is a few years since Rubin's volume of the same title emerged, followed by the two-volume work by Myers on THE CHEST AND THE HEART, to which Dr. Hinshaw was an important contributor. But only a short time has elapsed since the publication of NONTUBERCULOUS DISEASES OF THE CHEST by a group of doctors belonging to the American College of Physicians.

To find a radiologist listed as co-author of a volume on pulmonary disorders is both novel and gratifying. Dr. Garland's contributions of illustrations and accompanying text are excellent. Three other authors, each of whom wrote one chapter, are briefly alluded to in the preface, but are not named—an ungracious omission. Nor are their qualifications anywhere recorded. Those chapters—which, by the way, are quite good—cover measurement of pulmonary function; foreign bodies in the larynx and tracheobronchial tree; and coccidioidomycosis.

In rather standard, pedestrian fashion, the volume encompasses various forms of pulmonary disease. Each chapter is introduced by an outline of the material to be covered, and many chapters conclude with succinct summaries reviewing the salient points. X-ray reproductions illustrating the radiologic aspects of each condition are numerous and of a high order of clarity.

For reasons of their own, the authors of DISEASES OF THE CHEST have separated their discussion of "pulmonary inflammation and fibrosis due to physical, chemical and obscure causes" from the material in the final chapter dealing with "pulmonary diseases of occupational origin." In the latter chapter, incidentally, one senses a bias quite possibly related to personal courtroom experience. It seems that it would have been preferable to find information of those sorts collected in a single section.

The major topics of inflammation, neoplasm, infection and tuberculosis are well discussed and illustrated. A number of chapters are devoted to the last-named of those subjects. The attitudes are modern, but not highly individualized, and the style is undistinguished. By following the principles set forth there, physicians can establish accurate diagnoses and appropriate therapy for patients with pulmonary disorders. —*Leon J. Galinsky,* M.D.

CHRISTOPHER'S TEXTBOOK OF SURGERY, SIXTH EDITION, ed. by *Loyal Davis,* M.D. (Philadelphia, W. B. Saunders Company, 1956. $15.50).

As is apparent from its title, this volume should be regarded as a textbook. The basic fundamentals common to all surgery and surgical subspecialties are very clearly set forth, covering such things as wound care and repair, the healing of fractures, the training of the surgeon, etc. As in previous editions, large sections are devoted to fundamental anatomic and physiologic concepts as they are related to most of the subspecialties. For that reason, the book cannot be regarded as an everyday surgical reference.

Although some sections delve into the technical aspects of surgical procedures, the text is not primarily concerned with surgical technic. At the end of each chapter, a list of reading references is given that contains the titles of many important monographs on the subject that has been covered. The fact that this textbook has been widely used in medical schools throughout the past 20 years and has just undergone its sixth revision speaks for its importance.

There has been some modernization of many sections in this new edition, but the method of having individual experienced teachers present separate subjects remains the same. The volume should be included on each surgeon's bookshelf.—*R. E. Paul,* M.D.

TEXTBOOK OF ENDOCRINOLOGY, ed. by *Robert H. Williams,* M.D. (Philadelphia, W. B. Saunders Company, 1955. $13.00).

This is a most comprehensive and up-to-date reference book on endocrine physiology and endocrine diseases, beautifully written by ten well-known and highly qualified experts in the field. In recent years no field of medicine has advanced more rapidly than endocrinology. This book concisely and authoritatively presents the most pertinent and recent information concerning the diagnosis and treatment of endocrinopathies, and the use of hormone therapy in allergy, malignancy and other non-endocrine disorders. Controversial opinions are avoided.

The first chapter deals with general principles of endocrinology. Then, detailed descriptions are given of the pituitary, thyroid, adrenals, gonads, pancreas and parathyroids. Significant chemical aspects are discussed. A special chapter is devoted to the diagnostic tests in endocrinology. The relative merits of tools such as protein-bound iodine, radioiodine, thyrotropin tests and serum cholesterol are presented, and the indications of each are discussed. Likewise, various ACTH-response tests, the determination of urinary steroids and many other procedures are taken up. The differentiation of endocrine disorders from those that are not of endocrine origin is given a separate chapter. Details of the preoperative and postoperative care in adrenal disorders of various types are presented in detail.

A great deal of general medicine is necessarily included throughout the volume. The book is to be highly commended as a reference. Every practitioner of general medicine should read the sections pertaining to the commonly encountered endocrine disorders. —*Charles H. Gutenkauf,* M.D.

CLEVELAND M.D.'S REACH SETTLEMENT

Physicians and representatives of hospitals in Cleveland, Ohio, early in March, reached a compromise which, if ratified by local hospital boards and staffs, will result in the withdrawal of a court action that the doctors started in an effort to end the hiring of specialists on a salary basis.

The crux of the agreement is a statement that "if a hospital collects for a physician's services, the entire amount, as agreed upon by physician and hospital, shall be remitted to the physician."

Iowa Academy of General Practice

EIGHTH ANNUAL AAGP SCIENTIFIC ASSEMBLY

Washington, D. C., was the site of the best attended of all AAGP Scientific Assemblies, March 19-22, 1956. The registrants totaled 7,128, of whom 3,506 were physicians. The interest in all phases of the Assembly was intense, and it was evident that all who attended had a definite, serious purpose in mind. The scientific programs were the chief center of interest, but the business sessions were well attended and lively.

The Congress of Delegates passed a resolution condemning HR7225, the legislative proposal that would provide cash disability payments under the Social Security OASI program. Copies of the resolution were forwarded to all members of Congress.

The Delegates devoted considerable time to a discussion of proposed changes in the amounts and types of postgraduate study to be required of members. But they finally decided to make *no change*. The requirements are to remain as follows: 150 hours in three years, 50 hours of which shall be Category I, and 100 hours Category II.

The Iowa Chapter is happy to announce to the physicians of this state that Dr. William M. Sproul, of Des Moines, was elected vice-president of the AAGP. Dr. Sproul has been a faithful worker for both the Iowa Chapter as secretary-treasurer, as delegate, as president-elect, and now as president. He has been an active member of the AAGP Board of Directors for three years, and has served as chairman of its Membership and Credentials Commission. We in Iowa are proud to have a national officer in our midst, and are sure that his being simultaneously our chapter president and a high official of the AAGP will benefit all of us.

Dr. John S. DeTar, of Milan, Michigan, was installed as the new president of the AAGP, and in addition to Dr. Sproul, the following officers were elected by the Congress of Delegates: Dr. Malcom E. Phelps, El Reno, Oklahoma, president-elect; Dr. James D. Murphy, Fort Worth, Texas, speaker; and Dr. Horace W. Eshback, Drexel Hill, Pennsylvania, vice-speaker. The new Board members who were selected are Dr. Floyd C. Bratt, Rochester, New York; Dr. John G. Walsh, Sacramento, California; and Dr. Carleton R. Smith, Peoria, Illinois.

NIXON PAYS SURPRISE VISIT

A highlight of the general meeting of the AAGP, in Washington, D. C., was a 25-minute address delivered by Vice-President Richard M. Nixon. He told the assembled physicians that the government is anxious to help improve the quality of medical care, but sees no need for sweeping, radical changes. He added that health insurance should be available to everyone who wants it, but that no one should be compelled to carry insurance that he doesn't want or need.

MEDICAL STUDY REPORTS

The Membership and Credentials Commission granted permission to the Iowa Chapter to collect and evaluate medical study reports. This work has been started, and as soon as all material is complete and has been evaluated, each member will be notified as to his standing, and proper advice can be given him. This project makes more work for the state officers, but they feel that the help they can thus give to individual members will more than repay them for their efforts.

ANNUAL IAGP SCIENTIFIC ASSEMBLY

The Iowa Chapter is to hold its Annual Meeting on September 13 and 14, 1956, at the Hotel Savery, in Des Moines. All doctors in the state may attend this meeting, and IAGP members, especially, should mark their calendars and appointment books now, so as to be sure not to make any conflicting engagements.

An innovation this year will be technical exhibits by the pharmaceutical and surgical supply houses. Thus, those attending will be able to get a close look at the newer preparations, materials and equipment. The scientific program is just about complete, and will be published in the near future.

Members and guest physicians should plan to bring their wives with them. The ladies will be interested in the luncheons and the banquet, and, perhaps, they will welcome a vacation from their job of child care.

Make your hotel reservations now! All meetings will be held at the Hotel Savery.

MENTAL ILLNESS

THE RELATION OF DEPRESSION TO GRIEF, SLEEP AND MOURNING

Sleep, grief, mourning and depression, the accustomed responses that the human organism makes to its difficulties, may at first be helpful, but if they persist or become exaggerated, they can perpetuate the disturbance in its equilibrium.

Sleep has more than one virtue. Besides providing an opportunity for body chemistry to reach homeostasis, it provides an interval in which the psyche can reach a balance. The psyche can be said to resemble a bank, which is open to the public for no more than a relatively few hours each day because the employees must have time for balancing the books, making investments and transferring funds, so that all may be in order for the resumption of business on the morrow.

The experiences of the day come upon us in such rapid succession that we have little time for deciding which of them are valuable or significant and which are inconsequential. Some of the more difficult differentiations may create so much tension that dreams occur, thus giving us a partly conscious awareness of the process of integration that takes place while we sleep. All evidence seems to show that we integrate, assign to memory and revise our hierarchy of affective values after the events have occurred. Apparently, much more time is required for that sort of double-entry bookkeeping than is needed for the restoration of our chemical and physiologic equilibrium. Each of us can recall occasions when he felt physically restored after only a short nap, but needed seven or eight hours of sleep to reach psychic stability.

If sleep is unavailable, it has been demonstrated experimentally as well as in everyday experience that confusion sets in, and the person loses his efficiency fairly rapidly. Freud and others have pointed out that mourning after the death of a loved one is a biologic phenomenon that enables the bereaved to reintegrate his or her severed affective ties. Without this period of retarded activity and introspective reassessment, the subsequent life pattern would be upset. Erich Lindeman demonstrated the validity of this principle by gathering reports from relatives of the victims of the Coconut Grove disaster in Boston. Psychosomatic disorders and pathologic depressions were quite strikingly evident in those of the relatives who were unable to express their grief.

Common sense dictates that it is better to cry than to keep things within, and indeed we can say that mourning, like sleep, is essential to the restoration of psychic stability. But grief, and even sleep, can become pathologic when a vicious cycle has been established. This is occasionally seen in grief situations that continue into depressions, and one finds that a new factor is present—the relief of unexpressed guilt or hostility, brought about by the loss of one who was loved but, as often happens, was also hated.

In an individual who is beset by such a conflict of emotions, there is a self-perpetuating need for withdrawal, retardation of activity and reassessment, which can be solved only over a long period of time. Hence the definite course of a depression. Of course one can employ sleep, though quite unconsciously, as a means of avoiding disagreeable situations, or one can adopt it as a lazy form of behavior. The relationship between sleep and depression is also well known to persons of manic-depressive makeup, who find that after long sleep their mornings are periods of greatly slowed-down activity and definitely depressed coloring.

It seems that there may be some advantage in looking upon many depressions as exaggerations of a grief reaction, rather than as disease processes. But regardless of what one calls them, the patients need help. It is evident that such an individual cannot handle the etiologic factors by the means that he has adopted, any more than one can altogether satisfactorily avoid work by sleeping. The setting up of such habit patterns becomes pathologic in itself, for it is inefficient and leads to both psychologic and physiologic involvement.

The depression of the middle-life period, falsely called involutional melancholia, is basically different from manic-depressive depression. The former much more closely resembles a grief reaction. It seems to be an attempt on the part of the organism to reintegrate its affective losses, whereas manic-depressive states are exaggerations of a personality characteristic, namely the tendency toward periodically excessive expenditures and withholdings of energy and interest. These two depressions, although often difficult to differentiate, are really as different as are schizophrenia and neurosis. Further confusion is added by our using the word *depression*, at different times, to denote a symptom, a sydrome and a disease entity.

As in all disease processes, psychiatric disorders produce symptoms because of the reaction of the organism to a disturbance. One is frequently dismayed to hear disease spoken of as if it were no more than a microscopically observable change in the structure of cells. The change in structure has been preceded by attempts on the part of the organism to accommodate itself to whatever noxious agent has produced the disturbance. Without the reaction, there is no disease. For example, pneumococci may be present in the throats of many individuals who exhibit none of the symptoms of pneumonia. Similarly, many people have guilt feelings without depression. As the word *reaction* indicates, *something has to happen* between the organism and the noxious invader,

whether it be an experience or a bacterial toxin.

Thus, no matter what the cause and regardless of whether it gives rise to somatic pain or to psychic anxiety or to both, we are obligated to restore the equilibrium of the patient so that he can again find life rewarding. At no time does our semantic habit of speaking about body *and* mind appear more absurd than when we undertake that job. It is not enough that we perform feats of chemistry, or even that we reconstruct tissues. The patient seeks freedom from discomfort and dis-ease, not the proof of a scientific theory.

The Practice of Medicine An Art and a Science

(Continued from page 234)

their influence is being felt for the good of organized Medicine. In our own State Society, there is plenty of room for specialists and non-specialists, with no distinction. Let us see that all interested and qualified physicians are given opportunities to work for the betterment of medical practice and organized Medicine.

Medical public relations, in the final analysis, is merely the sum total of the relations between individual doctors and their individual patients, and is neither better nor worse than that total. Thus, it behooves each physician so to conduct his practice that good public relations will result. The organized groups at the county, state and national levels can then collectively carry out major health programs which will assure good relations on a broad scale. With proper application through the art of medicine, modern medical science will provide the American public with a type of medical care worthy of a service profession. As William Middleton has recently stated, "Rededicated to service and to humanity, and stripped of mysticism and pomposity, medicine will take its proper place in the social fabric."

SYNTHETIC BRONCHODILATOR DRUG

A new bronchodilator drug developed by Lakeside Laboratories and to be marketed under the trade name Caytine later this year was endorsed at the recent meeting of the American Academy of Allergy by Drs. I. H. Itkin, W. S. Burrage and J. W. Irwin, of Massachusetts General Hospital. They reported that they had found it particularly valuable in cases where other drugs such as epinephrine were ineffective, and they noted virtually no side effects.

In some asthma patients, they observed "jitteriness" or palpitation after ingestion of one of the tablets, but the symptoms were not considered serious enough to warrant stopping the use of the drug.

FRENQUEL IS DEFENDED

A passage in the short paper entitled "Toxic Psychoses" published in the "Mental Illness" column of the February JOURNAL OF THE IOWA STATE MEDICAL SOCIETY has evoked a protest from R. C. Pogge, M.D., Director of Medical Research for the Wm. S. Merrell Company, pharmaceutical manufacturers.

The paragraph was as follows: "According to recent reports, parenterally administered chlorpromazine, Serpasil and Frenquel produce a rapid clearing of the psychosis. But those drugs must be used with great caution, since they markedly potentiate the action of barbiturates, alcohol and narcotics."

Dr. Pogge says: "Actually, this is probably true in the case of both chlorpromazine and Serpasil, but Frenquel has only a slight potentiating of the effect of barbiturates on experimental animals and clinically it does not potentiate the action of either alcohol or bromides. It probably does not potentiate the action of barbiturates to a clinically noticeable extent either."

SUI College of Medicine Clinical Pathologic Conference

(Continued from page 261)

distally, and tended to be oriented longitudinally. In the colon, the ulcers tended to be more pit-like, and without raised edges. The mesentery contained numerous large, bluish lymph nodes, and the lymph nodes throughout the rest of the body were generally enlarged. The liver was enlarged and congested, as were the kidneys. Some fatty metamorphosis was present in the liver. The brain and spinal cord were swollen and congested, and a mild degree of meningitis was present.

Pseudomonas aeruginosae were cultivated from many tissues, and serum obtained at autopsy possessed a high antibody titer against the organism recovered.

NECROPSY DIAGNOSES

Systemic infection with Pseudomonas aeruginosae, including

a. Ulcerative enterocolitis, severe
b. Pancreatitis, severe
c. Hemorrhagic pneumonitis, especially severe on right
d. Meningitis, mild
e. Toxic erythema of skin

Pulmonary collapse, extensive

Pleural effusion, bilateral, severe

Ascites, severe

Congestion of viscera, severe

BLUE CROSS



BLUE SHIELD

Claims Paid by Type of Service Iowa Blue Shield in 1955

Service	*Number of Services*	*Per Cent of Total*	*Total Paid*	*Per Cent of Total*
MATERNITY				
Delivery	11,923	7.29	$ 709,671.91	14.24
Caesarean Section	544	.33	52,710.00	1.06
Total	12,467	7.62	$ 762,381.91	15.30
SURGICAL				
Appendectomy	2,362	1.44	$ 232,992.00	4.68
Tonsillectomy	4,442	2.72	120,557.00	2.42
Herniotomy	1,785	1.09	191,716.00	3.85
Cholecystectomy	1,052	.64	143,817.90	2.89
Hemorrhoidectomy	1,285	.79	61,409.00	1.23
Hysterectomy	1,273	.78	166,966.00	3.35
D & C	2,141	1.31	55,953.50	1.12
Lig, Saph, Vein	601	.37	51,423.75	1.03
Thyroidectomy	312	.19	45,660.00	.92
Cystoscopy	2,423	1.48	69,509.15	1.39
Prostatectomy	333	.20	48,605.00	.98
Benign breast tumor	1,011	.62	40,040.15	.80
Traumatic wounds	19,774	12.09	209,048.56	4.20
Fractures	4,618	3.44	127,380.65	2.56
Tumors	7,524	4.60	93,394.86	1.87
All other surgery	31,089	19.01	1,189,372.53	23.87
Total Surgery	83,025	50.77	$2,847,846.05	57.16
ANCILLARY BENEFITS				
Anesthesia	21,784	13.32	$ 302,286.53	6.07
X-ray—diagnostic	14,594	8.92	144,587.23	2.90
X-ray—radium therapy	765	.47	46,572.00	.93
Medical care—Hospital	30,919	18.90	878,724.21	17.64
Total	68,062	41.61	$1,372,169.97	27.54
TOTAL ALL PAYMENTS	163,554	100.00	$4,982,397.93	100.00

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer

COMMISSIONER

IOWA POLIOMYELITIS CASES BY COUNTIES WITH CASE RATES FOR 1955

County	1952	1953	1954	1955	Case Rate 1955*
Adair	8		4	1	8.4
Adams	9		2		
Allamakee	11	8	13	10	63.3
Appanoose	6	3	8	1	5.5
Audubon	9	4	10	2	17.4
Benton	10	2	3	1	4.4
Black Hawk	118	16	38	28	24.7
Boone	28	1	13	5	20.6
Bremer	15	3	9	2	10.1
Buchanan	6	3	4	1	5.0
Buena Vista	49	5	4	1	4.5
Butler	31	4	5	4	23.4
Calhoun	61	6	19	6	36.4
Carroll	24	1	10	5	21.4
Cass	38	3	7		
Cedar	21	3	5	1	5.9
Cerro Gordo	51	13	10	3	6.2
Cherokee	159	12	9	1	6.1
Chickasaw	39	2	4	2	13.1
Clarke	8	2	3	2	22.1
Clay	68	9	4	2	10.8
Clayton	14	13	21	2	9.4
Clinton	38	23	17	10	18.6
Crawford	38	12	9	2	10.3
Dallas	35	13	18	6	26.0
Davis	9		3	2	21.3
Decatur	12	2	4	1	8.3
Delaware	11	4	13	4	23.2
Des Moines	10	4	17	16	34.7
Dickinson	8		3	2	15.1
Dubuque	67	12	27	10	12.7
Emmet	6	2	1		
Fayette	17	14	12	1	3.6
Floyd	25	8	11	6	26.6
Franklin	14	4	10	4	24.6
Fremont	11		3		
Greene	16	2	11	1	6.7
Grundy	27	2	6	5	35.9
Guthrie	26	2	18	8	55.9
Hamilton	32	2	8	4	20.4
Hancock	25	6	9	2	13.4
Hardin	19	6	14	3	13.8
Harrison	53	6	4	2	11.2
Henry	4	1	11	1	5.9
Howard	18	2	5	3	23.3
Humboldt	11	11	16	3	23.2
Ida	59	11	6	1	9.5
Iowa	19	8	13	3	19.9
Jackson	6	3	4		
Jasper	54	9	23	13	39.2
Jefferson	10		24	2	12.7
Johnson	47	6	19	17	39.6
Jones	14	1	10	3	17.2
Keokuk	7	5	20	6	37.8
Kossuth	16	5	4	11	42.1
Lee	10	3	11	35	81.7
Linn	50	13	63	24	20.3
Louisa	5	1	6	3	27.4
Lucas	5		10	1	9.0
Lyon	17	9	2		
Madison	6	2	6		
Mahaska	11	2	25	11	46.9
Marion	9	5	31	5	19.7
Marshall	22	4	15	7	19.9
Mills	19		1		
Mitchell	20	14	12	6	43.2
Monona	97	4	1	1	6.5
Monroe	3		4	1	9.4
Montgomery	27	2	4		
Muscatine	11	8	20	3	9.1
O'Brien	51	6	5	4	21.2
Osceola	14	4	1	2	20.1
Page	52		3	2	9.4
Palo Alto	10		7	1	6.3
Plymouth	80	5	10	1	4.3
Pocahontas	11	4	5	1	6.6
Polk	436	71	256	96	38 2
Pottawattamie	138	7	20	9	12.4
Poweshiek	13	7	7	4	20.2
Ringgold	4		2		
Sac	95	10	21	9	51.4
Scott	55	17	62	10	8.8
Shelby	25	2	7	4	25.8
Sioux	43	2	2	4	15.4
Story	40	17	48	20	49.7
Tama	25	2	5	3	14.3
Taylor	13		2		
Union	11	1	1	1	6.5
Van Buren	2		5	1	9.7
Wapello	13	6	42	19	38.1
Warren	26	7	19	5	27.9
Washington	30	3	22	8	41.4
Wayne	11	3	8	4	36.7
Webster	42	20	27	5	10.7
Winnebago	10	5	2		
Winneshiek	32	6	7	4	18.8
Woodbury	379	36	35	10	9.5
Worth	11		2	3	27.6
Wright	33	6	13	2	10.3
Total	3564	613	1445	561	21.0

* Case rate per 100,000 population. Based upon 1955 civilian population.

MORBIDITY REPORT FOR MONTH OF FEBRUARY

Disease	1956 Feb.	1956 Jan.	1955 Feb.	Most Cases Reported From These Counties
Diphtheria	6	5	1	Scott 4, Woodbury 2
Scarlet Fever	136	76	86	Polk, Wright, Buena Vista, Dubuque, Cedar
Typhoid Fever	2	3	2	Polk 1, Pottawattamie 1
Smallpox	0	0	0	.....
Measles	795	582	1116	Clay, Clinton, Polk, Woodbury, Linn, Monona
Whooping Cough	33	57	119	Polk, Dubuque, Howard, Pottawattamie
Brucellosis	14	14	10	Pottawattamie 3, Polk 2, others scattered 1 to a county
Chickenpox	1039	944	695	Polk, Dubuque, Des Moines, Scott, Monona
Meningococcus Meningitis	1	1	4	Cerro Gordo 1
Mumps	159	103	983	Des Moines, Story, Scott, Dubuque
Poliomyelitis	3	*11	5	Johnson 1, Polk 1, Sac 1
Inf. Hepatitis	47	48	193	Cedar, Linn, Mitchell, Scott, Clinton
Rabies in Animals	15	9	15	Jasper 3, others scattered 1 to a county
Malaria	0	0	0	.....
Psittacosis	0	1	1	.....
Q Fever	0	0	0	.....
Tuberculosis	36	28	48	For the State
Syphillis	16	35	85	For the State
Gonorrhea	85	68	36	For the State

* Four of these were delayed cases.

BRUCELLOSIS IN IOWA, 1955

Iowa physicians reported 405 cases of brucellosis (undulant fever) during 1955, as compared with 351 and 556 cases for 1954 and 1953, respectively. Seventy-nine per cent of the reported cases for 1955 occurred in males—i.e., there were three male patients for every female one. It is presumed that men and boys are exposed to the disease more frequently than are girls and women because they have more contact with livestock.

Human cases will continue to occur as long as there is a reservoir of the disease in animals.

COUNTY DISTRIBUTION OF CASES IN 1954 AND 1955

County	Cases 1954	1955
Adair	—	3
Adams	2	3
Allamakee	4	3
Appanoose	5	5
Audubon	—	2
Benton	9	2
Black Hawk	16	25
Boone	2	1
Bremer	5	3
Buchanan	4	1
Buena Vista	7	8
Butler	4	2
Calhoun	1	—
Carroll	1	—
Cass	5	3
Cedar	6	8
Cerro Gordo	8	11
Cherokee	3	4
Chickasaw	1	2
Clarke	—	1
Clay	4	6
Clayton	3	3
Clinton	8	2
Crawford	—	—
Dallas	3	9
Davis	5	5
Decatur	3	5
Delaware	3	3
Des Moines	5	—
Dickinson	2	4
Dubuque	16	36
Emmet	2	5
Fayette	5	2
Floyd	4	1
Franklin	7	2
Fremont	—	1
Greene	—	—
Grundy	1	3
Guthrie	—	2
Hamilton	1	3
Hancock	3	4
Hardin	—	2
Harrison	1	2
Henry	—	—
Howard	—	3
Humboldt	1	1
Ida	2	2
Iowa	—	2
Jackson	4	1
Jasper	4	2
Jefferson	8	2
Johnson	5	6
Jones	3	4
Keokuk	4	7
Kossuth	1	2
Lee	—	1
Linn	8	11
Louisa	2	3
Lucas	—	2
Lyon	3	1
Madison	1	2
Mahaska	7	2
Marion	2	4
Marshall	5	4
Mills	1	—
Mitchell	4	2
Monona	—	2
Monroe	2	2
Montgomery	1	6
Muscatine	5	5
O'Brien	3	—
Osceola	5	4
Page	4	—
Palo Alto	1	2
Plymouth	6	6
Pocahontas	4	—
Polk	22	19
Pottawattamie	3	2
Poweshiek	1	3
Ringgold	1	—
Sac	4	4
Scott	17	45
Shelby	1	9
Sioux	5	1
Story	1	4
Tama	2	1
Taylor	2	—
Union	1	—
Van Buren	1	2
Wapello	6	2
Warren	3	2
Washington	3	6
Wayne	2	3
Webster	1	4
Winnebago	3	3
Winneshiek	4	5
Woodbury	11	7
Worth	—	2
Wright	2	3
Total	351	405

MONOGRAPH ON LUNG CANCER

A 54-page monograph on the epidemiologic, medical and experimental evidence regarding substances known or thought to cause respiratory cancer in man has been published by the U.S.P.H.S. The title is "A Quest into the Environmental Causes of Cancer of the Lung," and the author is Dr. W. C. Hueper, head of the Environmental Cancer Section of the National Cancer Institute. Copies are available from the Superintendent of Documents, Government Printing Office, Washington, and the price is 45 cents. It is Public Health Monograph No. 36.

MORBIDITY REPORT FOR MONTH OF MARCH

Disease	1956 Mar.	1956 Feb.	1955 Mar.	Most Cases Reported From These Counties
Diphtheria	2	6	0	Cherokee 1, Scott 1
Scarlet Fever	193	136	115	Polk, Wright, Buena Vista, Clinton, Dubuque
Typhoid Fever	3	2	4	Carroll 1, Hardin 1, Polk 1
Smallpox				
Measles	907	795	1552	Buena Vista, Clinton, Polk, Clay, Calhoun
Whooping Cough	58	33	86	Polk, Dubuque, Story, Clay
Brucellosis	24	14	9	Jasper 3, Black Hawk 2, Dubuque 2, Washington 2, Winneshiek 2, others scattered 1 to a county
Chickenpox	1291	1039	720	Dubuque, Polk, Des Moines, Scott, Boone
Meningococcus Meningitis	0	1	8	
Mumps	360	159	1121	Dubuque, Des Moines, Scott, Story, Buena Vista
Poliomyelitis	1	3	1	Jones 1
Inf. Hepatitis	51	47	164	Winneshiek, Linn, Benton, Greene
Rabies in Animals	11	15	13	Chickasaw 2, others scattered 1 to a county
Malaria	0	0	0	
Psittacosis	2	0	0	Cerro Gordo 2
Q Fever	0	0	0	
Tuberculosis	25	36	33	For the State
Syphillis	51	16	78	For the State
Gonorrhea	64	85	39	For the State

WOMAN'S AUXILIARY NEWS

Mrs. Edw. B. Hoeven, *Woman's Editor*
224 East AltaVista, Ottumwa

Mrs. Wilson Wolfe, *Asst. Woman's Editor*
N.E. Elm Street, Ottumwa

REPORT OF THE PRESIDENT, 1955-1956

One year ago, in Des Moines, along with the newly elected officers and appointed committee chairmen, I accepted responsibility for directing the activities of the Woman's Auxiliary to the Iowa State Medical Society under the general theme, "Active Leadership in Community Health," and our state theme, "Partners in Medicine." A year is a short period in which to accomplish the goals that we had set for ourselves, but your other officers and I have worked diligently to make the most of our opportunities.

It was my great privilege and pleasure to be asked to participate in making a kinescope for WOI-TV during the 1955 Annual Meeting, giving a two-minute résumé of the activities of our Auxiliary. This kinescope was used on the "Your Health" program sponsored by the Iowa State Medical Society.

My first official act was to preside at the post-convention board meeting, at which my committee appointments were approved by the Board of Directors. Plans for the coming year were outlined and discussed.

In May I attended the meeting of the Woman's Auxiliary to the Iowa State Dental Association, in Des Moines. As president, I was asked to participate in the Senior Medical Student Conference Day at SUI, an occasion that was sponsored by the ISMS. The topic on which I spoke to the senior medical students, their wives and fiancees was "What the Auxiliary Means to Organized Medicine."

An Executive Board Meeting was held in Des Moines on May 26, to outline the program for the ensuing year. From June 5 through 11, 1955, I attended the National Convention of the Woman's Auxiliary to the AMA in Atlantic City, and after my return, I sent out typed copies of my notes on all sessions and speeches. The favorable comments that my committee chairmen sent me about that report made the effort worthwhile.

A summer Board meeting was well attended in July, at which time plans were completed for fall program suggestions to be sent to county Auxiliaries. The YEAR BOOK was then in its final stages, though it wasn't printed and distributed until about September 1. The Annual Meeting plans were in the thought stages.

A two-day conference and Board meeting was held on September 15 and 16. Answers to a questionnaire had brought favorable comments concerning this type of meeting. On September 20, I was a guest speaker at a meeting of the Pottawattamie County Medical Auxiliary, and on September 27 and 28, I attended a district meeting in Sibley and a meeting of the Clay County Auxiliary in Spencer.

Having been made a member of the State Board of Nursing Careers Committee, I attended the fall meeting of that group on October 12, and on the next day, I attended the Mississippi Valley Tuberculosis and Trudeau Society meeting. On October 14, I represented the Iowa Auxiliary at a five-county Auxiliary meeting at Maryville, Missouri, where I was privileged to meet the president and president-elect of the Woman's Auxiliary to the Missouri State Medical Association.

Due to illness it was necessary that I cancel my plans for attending the medical legislation meeting in Omaha and the meeting of county medical society presidents and secretaries in Des Moines during October.

The president-elect, Mrs. Dean H. King, and I attended the Twelfth Annual Conference of Presidents and Presidents-elect in Chicago, November 1-3. I was an active participant on the Organization panel, speaking on "How to Reactivate an Inactive Auxiliary."

In January, I was a guest at the Polk County Auxiliary meeting, in Des Moines, and the Dallas-Guthrie Medical Auxiliary luncheon meeting at Dallas Center. My engagements during the latter part of January had to be cancelled because of illness in my family, and for some time thereafter, because of inclement weather and bad roads, I enjoyed a welcome respite from travel which gave me time to answer correspondence, make final plans for the Annual Meeting and send out outlines to county presidents for annual reports.

During March and April more meetings required my attendance, and I was asked to submit an article on home safety for publication in the magazine THE HOME SAFETY REVIEW.

When invited, I have made every effort to attend district or county society meetings, or to send a representative, for there is no substitute for personal contact. The sincerity and enthusiasm of the members of the county Auxiliaries are an inspiration to a state president to keep striving to do her part.

A most vital feature of our Auxiliary program consists of the work of various committee chair-

men. It is they who enable us to achieve our goals. Their efforts have sparked more interest in nurse recruitment, in philanthropies, in civil defense, in the AMEF, in legislative study groups, in the promotion of TODAY'S HEALTH, in mental health, in craft sales for the handicapped, in home and traffic safety and in the GEMS program. The detailed reports of these committee chairmen may be found in the Auxiliary's "Annual Report Book."

A new committee was added this year: Doctor's Day and Courtesy. Its duties will be to plan activities in honor of doctors on March 30 of each year and to send out congratulatory and condolence notes, as the case may be, using specially imprinted note paper.

The facilities of our State Office are to be made available to the Nursing Careers Committee for the disbursement of materials pertaining to nursing careers.

At the Annual Meeting in 1956, we inaugurated a session to be known as the Conference of Delegates for the transaction of all business.

County presidents are most important contributors to the success of any Auxiliary program, whether state or national. Their leadership, friendly spirit of cooperation, and enthusiasm are manifest in their reports of achievement that are to be printed in the "Annual Report Book." Most of the chapters have carried out one or more of the projects stressed by the state and national Auxiliary, and many have worked hard on every phase of the suggested programs. In addition, many of our members have found time to give additional volunteer service to local community activities of all types.

Since April, 1955, I have travelled more than 10,000 miles in the pursuance of my duties as president of the state Auxiliary. I shall attend the AMA meeting in Chicago in June, at which time I shall give our state report and serve as a member of the Courtesy Resolutions Committee. I have written and answered innumerable letters to individuals, and in addition to my Auxiliary obligations, I have carried on my local community volunteer duties as always.

I should like to express my sincere appreciation to the Iowa State Medical Society for the use of its offices as the hub of our activities. And on behalf of my officers and committee chairmen, I wish to thank Mrs. Hazel Lammey for her valuable assistance and, in particular, for the many "after hours" of work that she has given us. To Mr. Donald Taylor and his staff, I extend our thanks for their many helpful suggestions and tireless work in our behalf; and to Dr. Coffin, Dr. Downing and the other members of the advisory council I offer our gratitude for their interest and encouragement. To the many doctors throughout the state who have given time and effort to our work, all of us are grateful. For myself, I want to thank each individual member and officer of the Woman's Auxiliary for making my year as president a series of pleasant experiences that I shall long remember.

This report would be incomplete without a great tribute to my wonderful family who have been so patient when the duties of my office necessitated my being away from home, and for their encouragement and help at all times.

MRS. CHARLES H. FLYNN
President

COUNTY AUXILIARIES

Boone

The Woman's Auxiliary to the Boone County Medical Society met on March 13 at the Lincoln Restaurant for a one o'clock luncheon. The president, Mrs. R. E. Gunn, presided at the business meeting and election of officers. Mrs. R. E. Linder, of Ogden, was chosen as the new president; Mrs. H. F. Jenkins, of Ogden, vice-president; Mrs. L. R. Greco, of Boone, secretary; and Mrs. B. T. Whitaker, of Boone, treasurer.

Mrs. Whitaker showed pictures she had brought back from Guatemala and gave an interesting account of her trip.

Buena Vista

Mrs. Paul Brecher became the first president of the Buena Vista County Woman's Auxiliary on March 13. Mrs. J. A. Cornish is secretary-treasurer. Both live in Storm Lake.

A noon luncheon was held at the Steak House, Storm Lake, and seven charter members were present: Mmes. K. H. Prescott, Thomas E. Shea, R. E. Mailliard, Howard D. Ruliffson, J. A. Cornish and Paul Brecher, of Storm Lake, and Mrs. Rusl P. Noble, of Alta. Six eligibles were unable to attend.

Storm Lake has an active Future Nurses Club, and doctors' wives are active in the hospital auxiliary.

Clay

Dr. H. C. Merillat, Des Moines psychiatrist, spoke on current mental disease problems at a meeting sponsored by the Spencer Future Nurses Club at the High School Auditorium there, February 28. The audience was composed of students, teachers, parents, nurses, professional men and women, and other interested citizens. The Clay County Medical Society and its Auxiliary assisted with the project.

The Future Nurses made the arrangements, worked on invitations and publicity, served as ushers, and sat together during the lecture wearing their new, white Future Nurses' caps.

Delaware

The Delaware County Medical Auxiliary held a tea on March 31 at the Memorial Hospital in Manchester for senior and junior girls in the high schools who might be interested in nurses' training. Twenty-five from four towns attended. The guest speaker was Miss Lucille Kinley, from Mercy Hospital, Cedar Rapids, and a student nurse, also from Mercy, gave an interesting talk.

Mahaska

The Auxiliary to the Mahaska County Medical Society met on March 13 at the Downing Hotel, in Oskaloosa for a luncheon meeting. Mrs. E. B. Hoeven, of Ottumwa, editor of the WOMAN'S AUXILIARY NEWS, reported on a number of medical bills now in Congress. Mrs. H. A. Spilman, of Ottumwa, district councilor, and Mrs. Roger Augspurger, of Sigourney, were the other honored guests.

Following the meeting, the group went to the high school to hear Dr. Charles H. Henshaw, director of the Division of Dental Hygiene, Iowa State Department of Health, speak on fluoridation of water.

O'Brien

An afternoon coffee was held at the home of Mrs. Ivan Brown, in Hartley on March 15, for the doctors' wives of O'Brien County. Mrs. Dean H. King, president-elect of the state Auxiliary spoke on the purpose of the organization and the procedure for forming a county chapter.

The ladies in attendance then proceeded with the establishment of an Auxiliary to the O'Brien County Medical Society, and elected Mrs. Brown as its first president. They chose Mrs. J. C. Paterson, of Hartley, as secretary-treasurer, and Mrs. Lloyd Sweeney, of Sanborn, was appointed chairman of the TODAY'S HEALTH Committee.

Many doctors' wives in O'Brien County actively support the Clinic for Retarded Children at Sibley, and they are interested in forming a Future Nurses Club.

Polk

The Auxiliary to the Polk County Medical Society met for a one o'clock luncheon on March 12 at the Za-Ga-Zig Shrine Club. Hostesses for the meeting were Mmes. D. F. Crowley, Jr., Donald Newland and E. T. Burke. Junior League Gift Shop items were displayed, and an interesting history of the shop was given. Mrs. Robert B. Stickler introduced Mmes. Luther Hill and Sumner Macomber, participants in the program.

The sale of goods by handicapped persons of Iowa, which is sponsored jointly by the Polk County Medical Auxiliary and the Iowa Society for Crippled Children and Adults, Inc., was held March 20-24 in the tearoom foyer at Younkers, in Des Moines. Mrs. Everett M. George served as chairman. Over $950 was raised by this project.

Wapello

The Woman's Auxiliary to the Wapello County Medical Society met on March 27 at the home of Mrs. Edward Ebinger, in Ottumwa, for a special showing of the film "Danger at the Source." Mrs. Wm. Ireland and Mrs. Wm. Whitehouse assisted the hostess.

This moving picture, the official film of the "80 Dimes for Medical Schools" campaign was presented at that meeting by Mrs. H. A. Spilman, the state chairman for AMEF. It was also shown at a Rotary Club luncheon in Ottumwa.



NEWS AND VIEWS

How often people say, "I'm not interested in politics." They say it with an air of superiority, as though they thought themselves somehow apart from and above the "herd."

Such people are neither unintelligent nor illiterate; rather, they are shirking their plain duty. They are abdicating their inherited sovereignty.

These same people insist that their children eat proper food, wear adequate clothing and attend Sunday school. They believe themselves to be good parents and they feel that they are meeting their responsibilities.

But in their sanctimonious aversion to politics, they are being shortsighted. Their negligence is responsible for the entry of bad people into government—people who take, rather than give. Thus, for themselves and for their children, they release their liberties and drop them into the bottomless pit of "no return."

The socialists in government and outside of it are clamoring to include physicians in a tax scheme called Social Security. Honest, intelligent doctors are fighting against being arbitrarily included, for the plan is not insurance at all. Just as socialized medicine is wrong, so is socialized security.

Through failing to vote and failing to make their good judgment influential, these people who think themselves too good for politics deserve to share the blame for the greatest of ironies—that our government is bowed down under mountainous debts, greater than those of all the other countries of the world combined.

COUNTY SOCIETIES

Black Hawk

At the Elks Club in Waterloo on April 17, Dr. Karl A. Lofgren, of the Department of Peripheral Vein Surgery at the Mayo Clinic, addressed the Black Hawk County Medical Society on "Surgical Treatment of Varicose Veins in Stasis Ulcers."

Cerro Gordo

In the Sky Room of Hotel Hanford, Mason City, on May 8, Dr. Ian Brown, of the Department of Neurology at the University of Minnesota, will address the Cerro Gordo County Medical Society on "Vascular Insults to the Central Nervous System."

Clinton

On March 20, Dr. George N. Bedell, assistant professor of internal medicine at SUI, addressed the Clinton County Medical Society on "Indications for Surgery on the Heart and Great Blood Vessels."

Dubuque

At the March 13 meeting of the Dubuque County Medical Society, Dr. Arthur J. Vorwald, head of the Department of Industrial Medicine at the Wayne University College of Medicine, Detroit, spoke on "Problems of Industrial Medicine." At the April 10 meeting, Dr. Lawrence Halpin, of Cedar Rapids, spoke on the treatment of the acute asthmatic patient with standard drugs and with some sorts of hormonal therapy. And the May 8 meeting, to be held at the Dubuque Golf and Country Club, will be the Society's annual dinner dance.

Harrison

The Harrison County Medical Society has made a cash donation of $500 to the building fund of the proposed Community Hospital at Missouri Valley. The total amount given or pledged as of March 14 was in excess of $210,000. At present, there is no hospital in the county.

Johnson

At the April 4 meeting of the Johnson County Medical Society, Dr. Paul E. Huston, professor and head of the Department of Psychiatry at the SUI College of Medicine, spoke on "The Use of New Drugs in Psychiatry."

Marion

At the quarterly meeting of the Marion County Medical Society, held at the VA Hospital in Knoxville on March 28, Dr. A. L. Sahs, of the Department of Neurology at the SUI College of Medicine, spoke on "Organic Brain Syndromes."

Palo Alto

Dr. George Kenney, of Mallard, was honored by the Palo Alto County Medical Society at its meeting on March 17. It was Dr. Kenney's seventy-sixth birthday, and he had practiced in Mallard since 1910. Afterward, Dr. Harold L. Brereton spoke on fractures of the elbow, with particular emphasis on fractures of the head of the radius, and Dr. H. Robert Powers spoke on recent developments in the treatment of Ludwig's angina. Both men practice in Emmetsburg.

Scott

At the May 1 meeting of the Scott County Medical Society, at the Outing Club in Davenport, Dr. Edward Mason, of the Department of Surgery at the SUI College of Medicine, will present a paper on "The Clinical Significance of Serum Sodium Analysis."

Wright

The Wright County Medical Society held two scientific sessions during March. On the first of the month, at Goldfield, Dr. Francis E. Giles, of Fort Dodge, spoke on "Disturbances of the Urinary Tract," and on the twenty-ninth, at Clarion, Dr. Edmund C. Burke, of the Mayo Clinic, spoke on "Fluid Therapy in Infants and Children."

The Woman's Auxiliary to the Wright County Medical Society presented each doctor with a red carnation on Doctors' Day, March 30.

ST. LOUIS BORROWS ISMS KINESCOPES

The St. Louis (Missouri) Medical Society has made arrangements to borrow the kinescope recordings of the Iowa State Medical Society's television series "Your Health" for rebroadcast over station KETC-TV. Its weekly broadcasts, which will begin on May 1, will start with the programs that were presented live over WOI-TV—Ames, Iowa, in 1955.

DRAMAMINE® IN VERTIGO

Notes on the Diagnosis and Management of "Dizziness"

III. Ménière's Syndrome





1. Paroxysmal Whirling Vertigo. *This consists of sudden attacks of dizziness, often when the patient is at rest or asleep. The patient may feel that he himself is whirling or that fixed objects about him are whirling. The attack usually lasts for a few minutes; occasionally it is severe for weeks or subacute for months.*



2. Subtotal Hearing Loss. *Deafness will usually affect the high tones and it may be unilateral or bilateral. Sometimes the hearing loss is severe and also progressive.*

3. Tinnitus. *This is usually unilateral and present in the ear with greater hearing loss and is without a definite pattern.*



Fewer diagnostic errors[1] will result if a "triad of symptoms" is required of patients with suspected Ménière's syndrome. These are the symptoms of typical Ménière's syndrome:

1. Severe paroxysmal vertigo which may be of two types; either the patient feels that he is whirling or that objects about him are whirling.
2. Fluctuating subtotal hearing loss, usually affecting the higher tones, is noted at the same time as vertigo.
3. Tinnitus, usually unilateral, is associated with the deafness and dizziness.

With Ménière's syndrome there is no definite localization[2] by the Bárány (vestibular reaction) test and results of the caloric test are not diagnostic. Physical examination should rule out disease of the central nervous or cardiovascular systems before a diagnosis is made.

"Treatment with Dramamine®. . . is effective[3] in aborting and preventing attacks of Ménière's syndrome . . . will prevent or arrest attacks of vertigo. It will also reduce the intensity of the tinnitus and so may save some of the hearing in the affected ear."

Dramamine is recommended for Ménière's syndrome as the sole therapy or in combination with other treatment programs.

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1. DeWeese, D. D.: Symposium: Medical Management of Dizziness. The Importance of Accurate Diagnosis, Tr. Am. Acad. Ophth. *58*:694 (Sept.-Oct.) 1954.
2. Jackson, C., and Jackson, C. L. (editors): Diseases of the Nose, Throat, and Ear, Philadelphia, W. B. Saunders Company, 1945, pp. 368; 414.
3. Queries and Minor Notes: Ménière's Syndrome, J.A.M.A., *141*:500 (Oct. 15) 1949.

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The Month in Washington

Washington, D. C.—Among a growing list of health measures receiving active consideration this Congress are two bills that have very good chance of becoming law before adjournment this summer. That both measures have bi-partisan support is an important factor in this election-charged year.

Most advanced in the legislative process, having passed the Senate before the Easter recess, is the national morbidity survey proposal. The other bill, which also originated in the Senate, is the National Library of Medicine plan. Both are indorsed by the Eisenhower Administration.

There has been no national study of the extent of sickness and disability since the rather inadequate survey made in 1936 by the WPA. A series of special and continuing surveys under auspices of the U. S. Public Health Service, accordingly will fill "a very great need," Senator Hill, one of the bill's sponsors, informed the Senate.

Secretary Folsom of the Department of HEW describes the lack of morbidity data as "woeful." Nationwide data on the incidence, cause and duration of sickness and disability are basic, Mr. Folsom has pointed out, to efforts in improving voluntary health insurance.

The Senate agreed and, after writing in an amendment that would assure the conduct of surveys on a non-compulsory basis, passed the bill without a dissenting voice. The measure then went to the House Interstate and Foreign Commerce Committee. The American Medical Association indorses the survey idea.

The National Library of Medicine bill sponsored by Senators Hill and John Kennedy is an outgrowth of one of the Hoover Commission recommendations. The medical task force proposed that the Armed Forces Medical Library be reconstituted as the National Library and placed under the Smithsonian Institution. The Hill-Kennedy bill differs from the Commission in one major respect: it would establish the Library as an independent agency.

Sentiment, meanwhile, has developed for placing the Library in the Department of HEW, under Public Health Service supervision. This was supported by the Administration, and the American Medical Association urged immediate start on construction. Almost two years ago, before the question arose of a National Library, the AMA House of Delegates foresaw the need for housing the Armed Forces Library in more adequate quarters.

The bill's sponsors pointed out that the AMA in June of 1954 had found that "the irreplaceable collections of the Armed Forces Medical Library are now housed in a 67-year-old building totally

in rheumatoid arthritis



STANDING

is easier with STERANE[1]—3-5 times more potent than hydrocortisone or cortisone.[2]

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follows rapidly.[1] STERANE "is more effective than any previous drug in the control of...rheumatoid arthritis."[3]

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of electrolyte balance[1-3]—patients may even be treated without diet restrictions.

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supplied: *White, 5 mg. oral tablets, bottles of 20 and 100. Pink, 1 mg. oral tablets, bottles of 100.*

1. Spies, T. D., et al.: GP 12:73, No. 1. 1955. 2. Boland, E. W.: J.A.M.A. 160:613, 1956. 3. Gillhespy, R. O. Lancet 2:1393, 1955.

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. Brooklyn 6, New York

unsuitable for the purpose by reason of its inadequate size, poor state of repair, susceptibility of fire hazard and general inadaptibility to efficient operations. . . ."

Both Senators made this additional point: so long as it remains in the Defense Department, the Library simply cannot compete for funds against the needs and demands of those activities directly related to national defense.

* * *

A major development in the long legislative history of the House-approved bill to open up the social security system to cash disability payments was the testimony of Secretary Folsom to the Senate Finance Committee.

In a 3-hour appearance as the 101st and final witness, Mr. Folsom warned against enactment of the disability portion of the bill as well as the plan to lower the retirement age of women from 65 to 62.

Disability payments at age 50, Mr. Folsom declared, present "grave uncertainties" and "potential heavy costs to all social security taxpayers." A majority of the witnesses heard during the extended hearings opposed this section of the bill, H.R. 7225.

* * *

On the eve of the launching of the 1956 Cancer Crusade, the Food and Drug Administration issued its first public warning of this type in several years against cancer treatment fostered by Harry M. Hoxsey. FDA said long and thorough study by it and the National Cancer Institute has produced "no scientific evidence that the Hoxsey treatment has any value in the treatment of internal cancer." FDA said Hoxsey operates clinics at Dallas, Tex., and Portage, Pa.

* * *

NOTES

Surgeon General Leonard Scheele has been confirmed by the Senate for a third 4-year term as head of the U. S. Public Health Service. . . . Chairman Priest of the House Interstate and Foreign Commerce Committee has introduced a bill transferring from the Civil Aeronautics Board to the Civil Aeronautics Authority all medical aspects of civil aviation, including pilot examinations. It also authorizes a research program for the proposed Office of Civil Aviation Medicine. . . . PHS says the production of the Salk poliomyelitis vaccine is improving. It is now practical, added PHS, for doctors to use their available vaccine for first injections, and to count on receiving new supplies by the time second shots are due. . . . PHS Division of International Health, Washington 25, D. C. has a number of openings for physicians in foreign posts.

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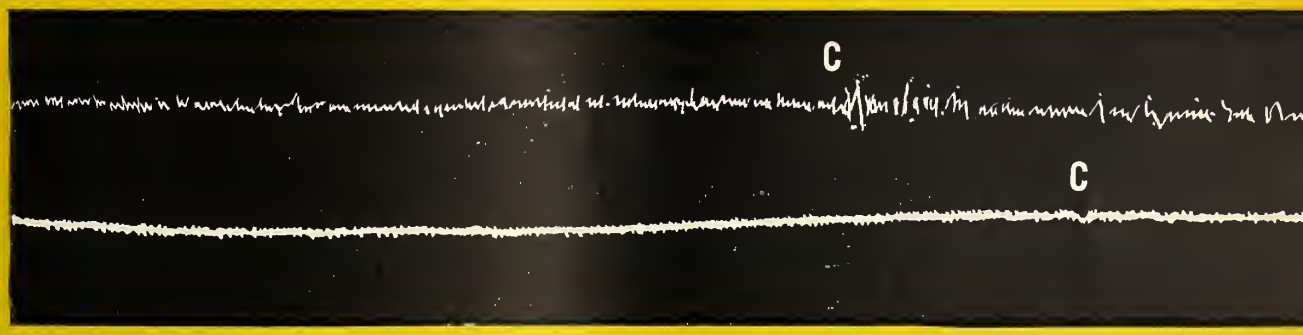
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The remarkable effectiveness of EQUANIL may be demonstrated in two ways. One is by its ability to relieve muscle spasm and neuromuscular tension.[1] The second is by its ability to relieve mental tension and anxiety.

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1. Dickel, H.A., et al.: West. J. Surg., April, 1956.

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WHY THE AGED ATTEMPT SUICIDE

Persons over 60 don't attempt suicide because of social and family difficulties so frequently as younger people do, three St. Louis physicians have found. Drs. Patricia O'Neal, Eli Robins and Edwin H. Schmidt, from the Department of Psychiatry at Washington University School of Medicine, have reported in the March issue of ARCHIVES OF PSYCHIATRY AND NEUROLOGY that attempts by aged people spring primarily from actual mental illness.

They reported a study of 109 attempted suicides of which 19 were by people over 60. These included 14 men and 5 women. The doctors found that 17 of the 19 had some specific type of mental disease, and 2 of them were chronic alcoholics. The younger individuals had a number of different diseases, and 23 per cent of the cases could not even be diagnosed.

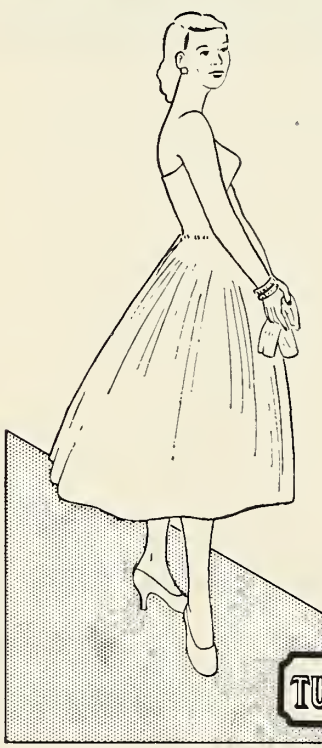
Since most of the aged patients were suffering a treatable or reversible disease, they could become useful citizens again if the underlying illness were overcome, the doctors said.

Potentially disturbing situations, such as marital or financial difficulties or the death of a loved one were much more frequent in the younger than in the older group. In fact, complaints of loneliness, financial trouble, or hopeless physical condition were rare among the aged patients.

The doctors concluded from their study and from a similar one made in England that loneliness, reactions to the aging process, feelings of uselessness, enforced unemployment, and the presence of serious physical illness are probably not alone sufficient to impel an older person to attempt suicide. Rather, some definite psychiatric illness almost always intervenes.

They pointed out that their study was concerned only with persons who attempted suicide and not persons who committed suicide. They did not know, therefore, how many of their findings would apply to a group of patients who actually destroy themselves, but they thought that patients whose attempts were designated as serious would be very similar to patients who were successful in killing themselves.

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Coming Meetings

(Continued from page 262)

June 11-22	**Course 2—Gynecology.** Cook County Graduate School of Medicine, Chicago
June 11-22	**Symposium on Modern Therapeutics in Internal Medicine.** New York University, NYC
June 11-23	**Histochemistry.** U. of Kansas Medical Center, Kansas City, Kansas
June 13-19	**Basic Sciences Related to Anesthesiology.** U. of Pittsburgh School of Medicine
June 14-15	**Colorado Inter-Resident Clinics.** U. of Colo. Med. Center, Denver
June 18 (10 hrs.)	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
June 18-21	**Medical Postgraduate Course.** Duke University School of Medicine, Durham, North Carolina
June 18-22	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
June 18-22	**Breast & Thyroid Surgery.** Cook County Graduate School of Medicine, Chicago
June 18-22	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
June 18-22	**Neurologic Medicine for Physicians.** Boston City Hospital
June 18-22	**Liver & Biliary Tract Disease.** Cook County Graduate School of Medicine, Chicago
June 18-29	**Fractures & Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
June 18-29	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
June 18-29	**Neurological Diseases: Cerebral Palsy.** Cook County Graduate School of Medicine, Chicago
June 18-30	**Surgical Anatomy & Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
June 20-22	**Pediatric Metabolism & Endocrinology.** Massachusetts General Hospital, Boston
June 21-23	**Postgraduate Course in Cardiovascular Disease.** Bowman-Gray School of Medicine, Winston-Salem, North Carolina
June 25 (10 hrs.)	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
June 25-29	**Twenty-fourth Annual Graduate Short Course.** Hotel George Washington, Jacksonville, Florida

PHYSICIANS STUDY TRAFFIC PROBLEMS

Physicians from the U. S. and Canada, and representatives of the armed forces, industry and driver licensing bureaus will meet at New York University on May 23 to study "Medical Aspects of Motor Vehicle Accident Prevention."

The objectives of the meeting are (1) to review present knowledge concerning medical and psychological factors in accident causation; (2) to secure the opinions of medical specialists on driver licensing; (3) to present these facts and opinions to general practitioners.

The following questions will be considered: (1) How should driver's license requirements be revised? (2) Should a psychological test of attitudes or emotional fitness be included in the driver license examination? (3) What special considerations should be taken into account in licensing elderly or physically disabled persons? (4) What restrictions should be put upon epileptics, diabetics and cardiac patients when licenses are given them? (5) Can and should chronic alcoholics be refused licenses? and (6) What drugs make driving hazardous?

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FORD FOUNDATION CONTRIBUTES TO NFME

A $10,000,000 program of grants to the National Fund for Medical Education was announced on April 15 by Mr. H. Rowan Gaither, Jr., president of the Ford Foundation.

The appropriation is intended to assist the National Fund for Medical Education in its efforts to strengthen the financial support it is giving to medical schools throughout the United States, both public and private, and to develop new sources of such support.

Grants from the $10,000,000 will be paid on a scale depending upon the amounts contributed by other firms and individuals. The program could last as long as 10 years, but might be accelerated to completion within five years. The maximum grant in any one year would be $2,000,000.

In 1955, the National Fund for Medical Education raised approximately $2,147,000 in unearmarked funds for distribution to the nation's medical schools. If as much is raised in 1956, the Foundation will contribute 70 per cent of that amount, or $1,503,486. All contributions to NFME in excess of the 1955 total would be matched dollar for dollar, up to the annual maximum of $2,000,000. In succeeding years, the Fund's receipts would be matched on a diminishing scale, but all receipts over the preceding year's total would be matched dollar for dollar, up to the limit previously mentioned.

The new appropriation is totally distinct from the $90,000,000 (endowment) one announced by the Ford Foundation's board of trustees in December, 1955, to help privately-supported medical schools strengthen their instruction. Allocations under this grant are to be determined by the trustees after consultation with an advisory group soon to be formed, and will be paid directly to the schools.

In announcing the grant to the National Foundation for Medical Education, Mr. Gaither said, "The Foundation hopes that grants under this appropriation will assist the National Fund for Medical Education in its efforts to stimulate the interest and response of the medical profession and of the general public, to the end that financial support for medical schools can be maintained at a level consistent with sound medical education."

Foundation grants will be distributed to the National Fund at the close of each calendar year, starting with 1956.

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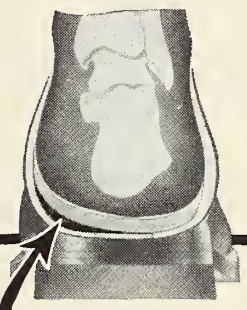
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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa

Thursday at 11:15 a.m.

"SIXTEEN—GROWING UP"

May 3 ..... The Gang
May 10 ..... Social Responsibility
May 17 ..... Skin Problems, Cleanliness
May 24 ..... Breaking Away From Home

"THAT WONDERFUL FEELING"

May 31 ..... Hey—Feel That Muscle!

WSUI—Iowa City, Iowa

Tuesday at 11:45 a.m.

"MEDICINE FIGHTS THE KILLERS"

May 1 ..... Tuberculosis
May 8 ..... Pneumonia
May 15 ..... Diabetes
May 22 ..... Suicide
May 29 ..... Infantile Paralysis

TELEVISION

WOI-TV—Ames, Iowa

Thursday at 10:00 p.m.

May 3 ..... Problems of Early Infancy
May 10 ..... Feeding Problems
May 17 ..... Convulsions in Children
May 24 ..... The Mentally Retarded Child
May 29 ..... Trends in Child Rearing

KGLO-TV—Mason City, Iowa

Monday at 2:00 p.m.

May 7 ..... Juvenile Delinquency (part 2)
May 14 ..... Pregnancy
May 21 ..... Accidents and Poisons
May 28 ..... Problems of Early Infancy

KCRG-TV—Cedar Rapids, Iowa

Sunday at 12:00 noon

May 6 ..... Juvenile Delinquency (part 1)
May 13 ..... Juvenile Delinquency (part 2)
May 20 ..... Pregnancy
May 27 ..... Accidents and Poisons

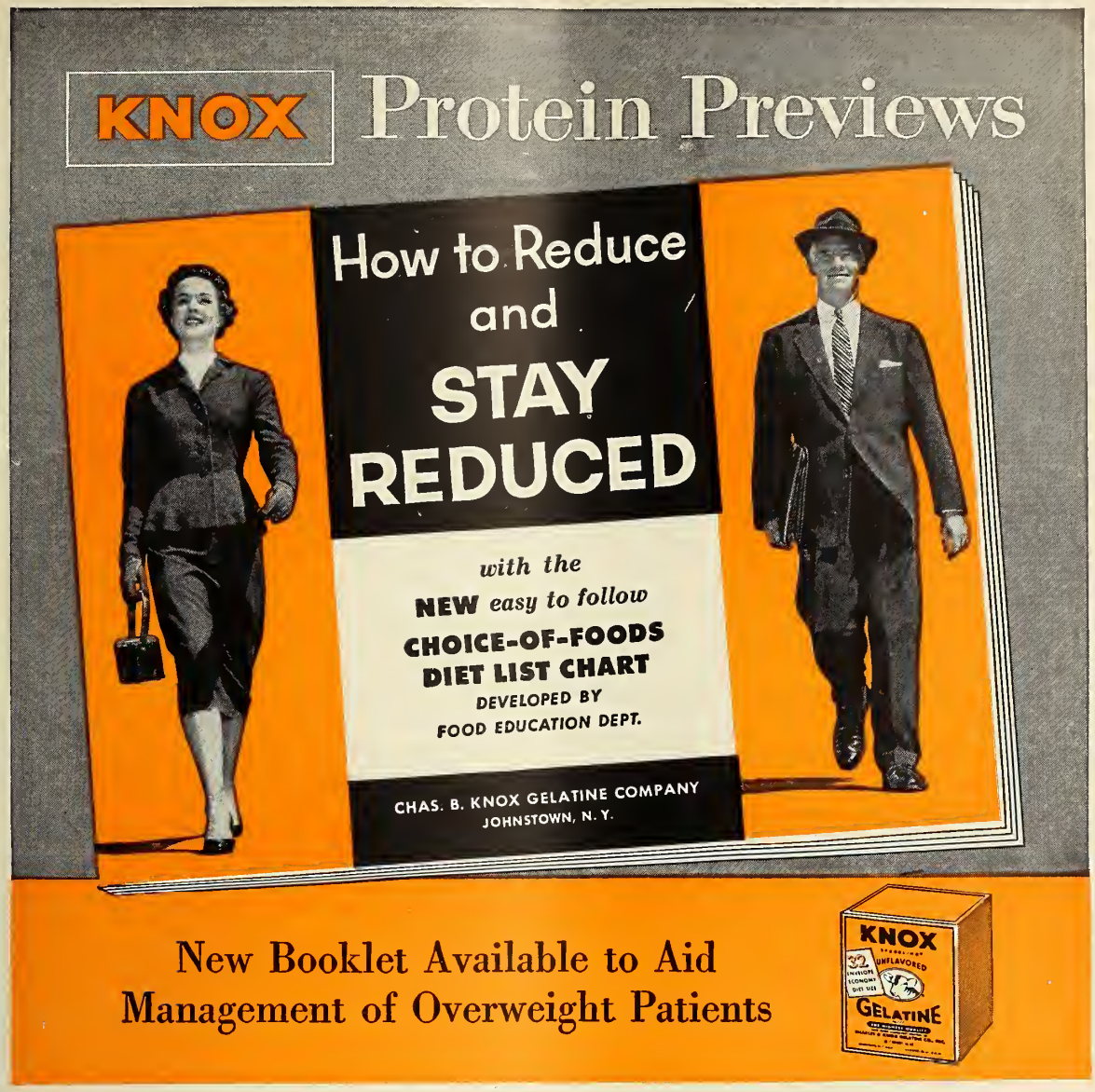
KTIV-TV—Sioux City, Iowa

Saturday at 3:30 p.m.

May 5 ..... Getting Along
May 12 ..... Habits
May 19 ..... Juvenile Delinquency (part 1)
May 26 ..... Juvenile Delinquency (part 2)

The foregoing schedules are subject to change at the discretion of the station managers.

KNOX Protein Previews



New Booklet Available to Aid Management of Overweight Patients

The 1955 edition of the well-known Knox "Eat-and-Reduce" booklet eliminates calorie counting for your obese patients. This year's edition is based on the use of Food Exchange Lists[1] which have proved so accurate in the dietary management of diabetics. These lists have been adapted to the dietary needs of patients who must lose weight.

The first 18 pages of the new booklet present in simple terms key information on the use of Food Exchanges (referred to in the book as Choices). In the center, double gatefold pages outline color-coded diets of 1200, 1600, and 1800 calories based on the Food Exchanges. Physicians will find these diets easy to revise to meet the special needs of individual patients.

To help patients persevere in their reducing plans, the last 14 pages of the new Knox booklet are devoted to more than six dozen *tested*, low-calorie recipes. Please use the coupon below to obtain copies of the new "Eat-and-Reduce" booklet for your practice.

1. Developed by the U. S. Public Health Service assisted by committees of The American Diabetes Assn., Inc. and The American Dietetic Assn.

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Surgical Anatomy & Clinical Surgery, Two Weeks, June 18
Surgery of Colon & Rectum, One Week, June 18
General Surgery, Two Weeks, September 10
Thoracic Surgery, One Week, June 4
Esophageal Surgery, One Week, June 11
Breast & Thyroid Surgery, One Week, June 18
Gallbladder Surgery, Ten Hours, June 25
Fractures & Traumatic Surgery, Two Weeks, June 18
Varicose Veins, Ten Hours, June 18

GYNECOLOGY—Office & Operative Gynecology, Two Weeks, June 18
Vaginal Approach to Pelvic Surgery, One Week, June 11

MEDICINE—Electrocardiography & Heart Disease, Two-Week Basic Course, July 9
Gastroscopy & Gastroenterology, Two Weeks, September 10

RADIOLOGY—Diagnostic X-Ray, Two Weeks, September 17
Clinical X-Ray, Two Weeks, by appointment

PEDIATRICS—Neurological Diseases: Cerebral Palsy, Two Weeks, June 18

UROLOGY—Two-Week Course, October 8
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PERSONALS

Part of the information on which the JOURNAL based its April note on the new orthopedic surgeon at Fort Dodge, **Dr. Roy O. Sebek,** was inaccurate, and part of it was out of date. He served his internship and most of his residency at Cook County Hospital, Chicago, rather than at Northwestern University, and finished his residency training at the Shrine Hospital for Crippled Children, in Minneapolis. On March 1, he began solo practice of his specialty in the Carver Building at Fort Dodge.

The editors' reliance on local newspaper reports occasionally leads them astray, and they would appreciate very much having members of the Society send corrections whenever they see inaccurate news stories about Iowa physicians.

Dr. and Mrs. Allan G. Felter, of Van Meter, plan to spend the months of July and August touring Europe.

On May 1, **Dr. Anthony M. Loes,** of Dubuque, is moving his office to his home. He will continue practicing.

A selection board that met in Washington, D. C., on February 7 promoted 222 Navy Medical Corps commanders to the rank of captain. Among them were several members of the ISMS, including **Drs. Maurice Bates, Everett M. George, E. J. Kelley, E. P. Lovejoy, Floyd A. Springer** and **D. C. Wirtz. Dr. C. C. Graves,** who recently resigned as director of Iowa mental hospitals, was another of the officers who were promoted.

Dr. A. E. Braley, head of the Department of Otolaryngology at the SUI College of Medicine, will address the American Goiter Association at the Drake Hotel, in Chicago, May 5, on malignant exophthalmos.

Dr. Austin E. Schill, of Des Moines, has been elected to the International College of Surgeons, and will be inducted to membership at the organization's September meeting in Chicago.

After practicing for 20 years in Iowa, **Dr. Norman Render** was required to take an examination for licensure when he moved from the Mental Health Institute at Clarinda to a similar state hospital in Nebraska. The certification of the National Board of Medical Examiners, on the basis of which he was licensed in Iowa, isn't recognized by the State of Nebraska.

Dr. F. C. Coleman, pathologist at Mercy Hospital, Des Moines, has been granted $1,800 by the Iowa Division of the American Cancer Society to finance the continuance of a study of breast cancer that he and **Dr. J. R. Schenken,** pathologist at Nebraska Methodist Hospital, Omaha, started early in February.

The two physicians are examining thousands of slides on which there are specimens from the axillary lymph nodes of breast cancer patients. They expect to demonstrate that such a technic can safely be relied on to show whether or not metastasis has occurred. If they succeed, Dr. Coleman says it will be possible "for the radiologist to limit his treatment to the safe bounds of radiation in borderline cases."

The Lions Club at Belmond named **Dr. S. P. Leinbach** the town's "Man of the Year" for 1955 at a meeting held on April 3. His citation said that he had been a leader "in making Belmond one of the nation's really outstanding rural health centers," and referred to other work that he has done in his community and on the state level.

Dr. Charles R. Sokol was recently elected to the membership of the board of education at State Center.

Drs. H. W. Morgan and **John R. Utne,** of the Cerro Gordo County Medical Society's Isotope Laboratory, have been granted permission to use phosphorus (P^{82}) and radioactive gold (Au^{198}), as well as iodinated human serum albumin (Resa). The last of those is used for blood-volume determinations in cases of hemorrhage or burns.

In the two-year history of the laboratory, iodine has been used in diagnosing 114 cases, and has been used in the treatment of disease in 15 cases.

The SUI College of Medicine has received $1,921 from **Mr. J. W. Fisher,** of Marshalltown, president of the Fisher Governor Company, for the establishment of two new medical scholarships and for the continuance of four that he had set up earlier. They pay for tuition and books up to $321 for each recipient.

Dr. Carlton B. Lake, who has practiced with **Dr. J. E. Whitmire** at Sumner since July, 1955, began a two-year tour of military service on March 29, when he reported at Fort Sam Houston, Texas.

Dr. J. R. Simmons, who has practiced five years at Hooper, Nebraska, opened an office in Paullina on April 9.



DOCTORS EVERYWHERE NOW KNOW WHY

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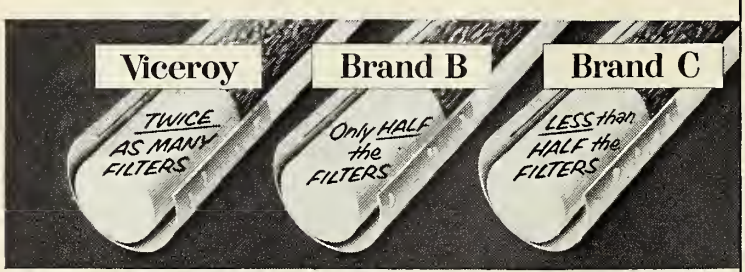


Professional men who have studied the microscopic analysis of the Viceroy filter now know why the Viceroy taste is smoother—never rough. Only Viceroy has 20,000 tiny filters in every tip—twice as many filters as the other two largest-selling filter brands. That is why Viceroys are smoother by far—never, never rough. That is why so many doctors now smoke and recommend Viceroys.

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Dr. T. L. Ward, of Arnolds Park, reentered St. Joseph Hospital, Sioux City, and underwent surgery on April 3. He had been hospitalized briefly during the preceding month, but in the meantime had attended the AAGP's Annual Scientific Assembly, in Washington, D. C.

On a trip that he and his wife made to the South early in April, **Dr. F. L. Knowles,** of Fort Dodge, delivered addresses at the annual meeting of the St. Louis Orthopedic Society, at a meeting of the surgical staff of the University of Tennessee and at a meeting of the surgical staff of the Tulane University Medical School and the Ochsner Clinic, in New Orleans.

The new hospital building at the State Penitentiary in Fort Madison for which the first earth was turned a few weeks ago will be named for **Dr. Robert L. Feightner.** Regarding the doctor, **Warden Percy Lainson** wrote in the April issue of PRESIDIO: "For a good many years, this highly regarded surgeon and physician has had charge of the medical services of this institution. At no time has he ever thought of the financial loss he is taking, or the hours he takes from his daily work to give medical services and fine surgical work to the men. . . ." He also commented: "I believe it is far better to honor a worthy man while he is still alive than to do it after his death."

Dr. John L. Mochal, who has been on the staff of Medical Associates in Dubuque for the past two years, has opened an office for general practice in Independence.

Dr. Byron M. Merkel has been elected to a two-year term on the board of directors of the Des Moines Rotary Club.

Dr. Elmer L. DeGowin, professor of internal medicine at SUI, was elected to the council of the American Association of University Professors at the organization's forty-second annual meeting in St. Louis on April 7.

The visiting participants at the meeting on diseases of the heart, lungs and great blood vessels at the SUI College of Medicine on March 23 and 24 included **Drs. W. L. Bierring, D. F. Crowley, Jr.,** and **Leon J. Galinsky,** all of Des Moines, and **Dr. W. F. Spear,** of Oakdale.

Two Omaha physicians, **Dr. William W. Jurgensen** and **Dr. Patrick Peartree,** have been named temporarily to succeed **Dr. Russell W. Blanchard,** who has given up the directorship of the radiology department at Jennie Edmundson Hospital, Council Bluffs, to begin practice in Waterloo. Dr. Jurgensen at one time was in general practice at Sioux City.



Dr. W. G. Kuehn, of Clarinda, has filed for election to the office of Page County coroner. The first M.D. to seek the post in several years, he will oppose three layman candidates.

Drs. Wayne K. Cooper, James V. Prouty, H. R. Hirleman and **S. T. Moen** have formed a corporation to construct a radiology clinic on First Avenue N.E., in Cedar Rapids. The group plans to practice at both its present offices in the Higley Building and at the new location.

Dr. A. F. Fritchen, of Decorah, has been appointed regional leader for Iowa of the Civil Aviation Medical Association.

Dr. W. K. Kienzle, formerly of Wellsburg, is taking residency training at the VA Hospital in Iowa City.

Dr. Charles D. Brummitt will join his father, **Dr. Charles F. Brummitt**, in practice at Centerville on July 1.

Dr. David H. Glenn is associated with **Drs. David M. Nyquist** and **John J. Shurts**, at Eldora.

An article on the effects of Rauwolfia serpentina upon the cardiovascular and central nervous systems, by four members of the SUI staff in internal medicine, **Drs. B. I. Lewis, R. I. Lubin, L. E. January** and **J. B. Wild**, appeared on pages 622-627 of the February 25 issue of J.A.M.A.

Dr. Paul M. Seebohm, of the Department of Internal Medicine, and **Dr. Wayburn S. Jeter**, of the Department of Bacteriology at SUI, have received a grant of $3,500 from the American Trudeau Society for the continuation of a study of tuberculin sensitivity on which they have been engaged for some time.

Dr. J. Maclean Smith, of the Department of Internal Medicine at SUI, is the co-author of a paper entitled "C Reactive Protein in the Acute Phase of the Common Contagious Diseases" which appeared on page 150 of the February issue of AMERICAN JOURNAL OF DISEASES OF CHILDREN.

Dr. George N. Bedell, of the same department, is a co-author of two articles in the March JOURNAL OF CLINICAL INVESTIGATION. They are "A Rapid Plethysmographic Method for Measuring Thoracic Gas Volume: A Comparison With a Nitrogen Washout Method for Measuring Functional Residual

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*Fishberg, A. M.: Hypertension and Nephritis, ed. 5, Philadelphia, Lea & Febiger, 1954, pp. 177-178.

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Capacity in Normal Subjects and Ambulatory Patients" (pp. 322-326), and "Measurement of the Volume of Gas in the Gastrointestinal Tract; Values in Normal Subjects and Ambulatory Patients" (pp. 336-345).

A new office building in Waterloo is being built for **Dr. Herbert Shulman,** and he has announced that on August 1, when it is ready for occupancy, he will be joined in practice by **Dr. Andrew C. Smith,** a 1952 graduate of the SUI College of Medicine, formerly of Charles City and now at Receiving Hospital, Detroit.

Dr. Douglas Gibson, an orthopedic surgeon in Des Moines, has announced that **Dr. John H. Kelley** is to be associated with him. Dr. John, the son of the late **Dr. Lawrence Kelley,** completed his fellowship in orthopedic surgery at the Mayo Clinic the first of this year.

Dr. Don C. Green, who opened an office for general practice in the 3700 block on Ingersoll Avenue last month, has announced his candidacy for coroner of Polk County. As of April 15, he was the only one to file on the Republican ticket, but two candidates, an osteopathic physician and a lawyer, have filed as Democrats. The incumbent, **Dr. Walter D. Anderson,** is not a candidate.

Dr. Gordon W. Gray, now a full-time staff suggeon at the Des Moines VA Hospital, was recently informed of his certification by the American Board of Surgery.

Dr. Edmund T. Burke, of Des Moines, received notice early in March that he had been certified by the American Board of Urology.

DEATHS

Dr. Wesley J. Morrison, 84, a Life Member of the Iowa State Medical Society, died of pneumonia at his home in Cedar Rapids on March 11.

Dr. Lafe H. Fritz, 69, who practiced surgery at Dubuque until he became ill several years ago, died at Tucson, Arizona, on March 13, following a series of strokes.

Dr. John B. Heles, 81, who practiced at Dubuque from 1903 until 1951, died at Mercy Hospital there on March 16, following a stroke.

Dr. Warren G. Brown, 91, a retired Stacyville physician, died at his home in Osage on March 30.

COSMETICS SYMPOSIUM AT AMA MEETING

For the first time in the history of the AMA, the Annual Meeting in Chicago next month will include a symposium on cosmetics. It will be held at 3:00 p.m. on Wednesday, June 13, at the Knickerbocker Hotel.

The program is to include papers and discussions on the following topics: Cutaneous Effects of Soaps and Detergents; The Rational Use of Cosmetics in Medical Practice; Sunscreens and Solar Hypersensitivity, Masking Cosmetics and Protective Creams; Depilatories and Antiperspirants; and Clinical Appraisal of Dermatoses Due to Cosmetic Materials.

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Scientific Articles

Current Trends in the Management Of Arthritis

DANIEL A. GLOMSET, M.D.

DES MOINES

In 1942, Dr. Philip Hench said in an "off the cuff" discussion on the treatment of arthritis that although the medical profession had achieved little in its progress toward a cure for the ailment, only one of the drugs that it was using in the treatment of such patients could produce death. That one drug was gold. In 1949, he and his coworkers announced the new drugs cortisone and ACTH, in a paper that they were careful to explain was "not . . . a clinico-therapeutic report, but . . . a study of certain physiologic effects which these new hormones exert on rheumatoid arthritis."[1] Their announcement shook the medical profession out of an attitude of therapeutic nihilism into one of furious activity. Those and many subsequent drugs were quickly put on the market and were ballyhooed by physicians and by the lay press as "cures" for arthritis. An era of reactive pessimism ensued, which was engendered by reports of harmful side effects and deaths following the use of these remedies. But from pessimism, the pendulum is now swinging back once again, and since relative sanity now prevails as regards the treatment of arthritis, it seems that the time has arrived for us to undertake an "agonizing reappraisal" of our tools and our use of them.

Nowadays it appears that although millions of individuals are suffering from rheumatoid arthritis, the medical profession has found neither a cause nor a cure for their condition. We know that arthritis is a disease of remissions and exacerbations, and yet we have no accurate measure of the degree of those variations. Dr. Charles Ragan, of Columbia University, expressed our inability to measure the degree of activity of arthritis when he said, "In our clinic at least, we feel that activity is best measured by how much the patient complains." That, as he went on to say, is not a highly objective criterion for the activity of any disease.

Our above-mentioned "blind spots" regarding the cause, cure and degree of activity of arthritis have greatly obstructed us in the therapeutic assay of any given product or method, and have necessitated the erection of some common-sense guideposts. The American Rheumatism Association has devised standard criteria for the determination of stages of rheumatoid arthritis, classes of functional impairment and grades of response to therapy.[3] Furthermore, many articles are preaching the necessity for experiments controlled through the use of the "double blind" and placebo technics. By cautious use of the above modalities, the medical profession is advancing toward the truth by much more rapid strides than in years gone by.

As practicing physicians, we have the problem of outlining a palliative program that will achieve maximum benefit for each individual patient. But we must be aware of the pitfalls that may lie ahead, so that our patients may not suffer harmful effects from our efforts.

PHYSIOTHERAPY

When the diagnosis of arthritis has been established, the doctor must decide on a course of therapy. In most cases, it is wise for him to begin with time-honored remedies—ones which are simple and harmless. The doctor's attitude toward his arthritic patients is most important. The victims are often miserable and depressed, and they may even be mildly hostile as a result of long-standing pain both of the body and of the pocketbook. They resent any attitude of resignation or therapeutic nihilism on the part of the doctor. Thus, the first of his jobs is to reassure them that there are many

things that can be done for their suffering, that the best procedure is to play one ace at a time, and that the proper procedure is to begin with simple remedies and, if necessary, work up to the more complex. First of all, however, the physician should undertake to give reassurance.

Rest should be the next item on the agenda. Individuals with active arthritis are fatigued and reticent about partaking in an active program. They need curtailment of activity, afternoon naps and more rest at night.

They also need physiotherapy. If at all possible, a trained physiotherapist should institute treatment and instruct the patient in various methods of applying heat, massage and exercise. If such a therapist is unavailable, the doctor must do his best to instruct the patient in the technics of applying heat and massage, in the paraffin bath and in the use of a bed board to prevent deformities of the spine and knee. Walkers or crutches may be rented. Exercises on home-made bicycles or with systems of pulleys may be devised. Splints may be used during part of the day or night to prevent crippling deformities of the hand. Weights may be used on the thighs for a few hours a day to keep the knees straight. Occupational therapy should be encouraged. All these methods give the patient something to live for, relieve his suffering and prevent his acquiring any crippling deformities.

SALICYLATES

Of the host of medications that have been advocated for arthritis, salicylates are the only ones on which all authors are agreed. They are simple, cheap, efficacious and harmless. It therefore seems logical for us to use them first and foremost in arthritis, even though they are probably no more than analgesic agents. Some have expressed the opinion that they stimulate hypersecretion of glucocorticoids,[4] but recent articles have pointed out that there is no increase in corticosteroid excretion in the urine or in the level of 17-ketosteroids in the blood.[5, 6, 7]

Salicylates are useful in all types of arthritis, early or late, but they are especially good in early cases. A recent article from England concludes that in early stages of rheumatoid arthritis, salicylates are just as efficacious as cortisone. In that article, 30 cases of early arthritis on cortisone therapy are compared with 31 cases on aspirin alone. At the end of one year, the disease was only slightly active or was inactive in three-quarters of the patients in each group, and two-fifths of each group were capable of normal activity. Thus, the authors observed, "For practical purposes there appears to have been surprisingly little to choose between cortisone and aspirin in the management of these 61 patients in the early stage of rheumatoid arthritis."[8]

Salicylates may therefore be satisfactory when used as the only pharmacologic agent in therapy. Furthermore, other drugs such as cortisone, phenylbutazone (Butazolidin—Geigy), or gold used in the treatment of arthritis may be used in subtherapeutic doses, so that perhaps three-quarters of the pain is relieved. Salicylates can then be added to remove the remaining one-quarter of the pain. Salicylates may also be combined with potentiating drugs. Zarafonetis[7] believes that para-aminobenzoic acid has a synergistic effect when combined with salicylates in arthritis, although it is probable that it merely elevates the blood salicylate level, thus giving added salicylate effect.[9] It would seem, at any rate, that the addition of para-aminobenzoic acid to salicylate therapy might be rational, even if not dramatic. Others have combined calcium succinate with aspirin and have felt that the succinate radical, by enhancing the salicylate therapy, is in itself an active ingredient in the treatment of arthritic disorders. Time will tell whether this drug will prove to be of value.[11]

At present, it is suggested that regular rather than spasmodic doses of salicylates be administered. The most popular drug today is the enseal of sodium salicylate given as 0.6 Gm. four or more times daily. Other forms of the drug such as salicylate with para-aminobenzoic acid, potassium salicylate, aspirin or Bufferin are certainly just as valuable and perhaps even preferable to sodium salicylate in certain cases.

CORTISONE

When salicylates, physiotherapy and rest fail to halt the progress of rheumatoid arthritis, or when the disease is rapidly fulminating, the physician must seek other alleviatory methods. Some say that gold is the next drug of choice. Others—including me—prefer cortisone. It was originally hoped that cortisone might cure arthritis after a few weeks of administration. Now, we realize that cortisone must usually be continued for months, or even years. Even then, the effect is palliative,[20] rather than curative, for joints may deteriorate even during adequate cortisone administration.[19] The action of cortisone is to "overcome the noxious agent stressing the adrenal cortex."[12] In doing so, it produces atrophy of the zona fasciculata and reticularis, and broadening of the zona glomerulosa of the adrenal cortex. This, in turn, deters the response of the adrenal to stimulation with ACTH or noxious agents. Histologic studies show that the atrophy is reversible in 17 to 50 days (in spite of reports of deaths from shock after cessation of treatment for many months[13]). Cortisone therapy is therefore like a triple-edged sword,[14] with salutary effects, immediate deleterious effects and delayed deleterious effects. The doctor must be cognizant of those side effects before beginning therapy, and he must be willing to gamble.

Some deaths have occurred as a result of the inability of the adrenal to put forth the extra amount of hormone that is needed in a time of stress, such

as an accident or a surgical operation. Segalaff[14] mentions that these deaths may occur as long as one year after cessation of therapy, and suggests that patients should carry cards stating that they are or have been on long-term cortisone therapy. He suggests further that the preoperative patient should receive an extra 200 mg. of cortisone daily for two days prior to and following surgery. After the second postoperative day, the additional cortisone can be gradually withdrawn. Deaths may result from bleeding or perforated ulcers that have been newly activated by cortisone. If cortisone is elected in ulcer patients, it should be accompanied by vigorous and continued anti-ulcer therapy. Deaths have been reported from hypersensitivity to ACTH when a repeat dose is given.[15] Fractures of osteoporotic bones have been reported.[16] I have had one such case. In individuals with osteoporosis, it has been suggested that one should give prophylactic testosterone (or estrogen in menopausal women) in hope of preventing demineralization. All warn of the possibility of activating or aggravating tuberculosis, but some suggest that if cortisone is necessary in tuberculous individuals, it may be counteracted by antituberculous drugs. Other situations such as diabetes and hypertension have not proved to be so troublesome as had been feared. In most cases, added insulin, antihypertensive drugs or diminution in the amount of cortisone holds these complicating diseases in check. The syndrome of chronic hypercortisonism during withdrawal of cortisone may be alleviated by the temporary increase in dosage.[17] Finally, for patients receiving more than 50 mg. of cortisone daily, potassium chloride in doses of three to four grams daily should be prescribed.

In spite of all the dangers, cortisone is still an extremely valuable drug. Clark[18] reports that in moderate to severe cases one can expect major subjective response in 74 per cent of cases and major objective response in 38 per cent. Copeman and his co-workers[19] treated 20 cases of severe, incapacitating arthritis, all of whom had had a previous trial on salicylates and gold. Duration of the disease averaged 6.8 years. After more than a year of cortisone therapy, 17 of these 20 had returned to work.

There are two extreme methods[21] for institution of therapy. One of them begins with a high dose of 200-300 mg. daily and works downward; the other starts with a low dose and works upward. I prefer the middle ground—that is, a dose of about 100 mg. daily to begin with, and adjustments upward or downward according to symptomatic response. Dosage should be divided as nearly as possible for administration at intervals of six hours, but it is not necessary that the patient be awakened for medication. Dosage should be diminished gradually by 5 mg. steps each two weeks[22] until about 25 per cent of the pain recurs. It is felt that if the patient can be relieved of most of his pain, he will be able to carry out some or all of his activities with additional salicylate therapy; and contractures, deformities and side effects will be minimized.

Since the introduction of cortisone, several similar synthetic drugs have appeared on the market. These others are more potent than cortisone, milligram for milligram, and are reported to have fewer side effects, milligram for milligram. Hydrocortisone is almost twice as potent as cortisone, and metacortandracin (Meticorten—Schering) is four to five times as potent. Dangerous side effects from these drugs are reported to be much less severe or to be non-existent,[23] particularly as regards sodium retention.

Hydrocortisone is effective not only orally, but after intra-articular injection. Hollander[24] introduced this new method for clinical application in 1951. Others have substantiated his work.[25, 26] Twenty-five milligrams or less are injected into the joint most severely affected. The injection is repeated as the patient desires, according to the length of relief from symptoms. Hollander found over 85 per cent of the initial injections were successful in preventing pain from three days to many weeks. Subsequent injections were often beneficial for longer periods. Twenty per cent of patients experienced relief for one year. In osteoarthritis, subjective relief may be expected in about 48 per cent of instances. The injection method is an adjunct to, rather than a substitute for, oral therapy, but in some instances it may be possible, by relieving the worst joint, to cut down on the systemic dose of corticosteroid. Injections may also be used with impunity in systemic diseases in which general cortisone therapy is dangerous. Injections should not be made in spinal arthritis, or in instances in which there is an infection in or near the joint.

Cortisone and allied steroids have therefore proved a boon to the patient and to the doctor who is interested in arthritis. They are not a cure, but they are neverthless a distinct addition to our armamentarium. With careful attention to possible side effects, dangers should be minimal.

PHENYLBUTAZONE

Another helpful drug in the treatment of arthritis is phenylbutazone (Butazolidin). During the past year or two I have been using it rather blithely and have been experiencing only a few minor side effects. Early reports indicated the incidence of side effects to be between 20 per cent and 40 per cent, but intimated that these effects were reversible. My blood was chilled when I went over the recent literature and found that there had been many deaths and many serious side effects from the use of the drug and that there was rather universal agreement that it should be administered only with the greatest of caution. Some say that it should be used only after all others have failed,[27]

and some say that it should be administered only in a hospital.

Inasmuch as Butazolidin is chemically related to amidopyrine, one would expect serious reactions. Side effects may be (1) in the gastrointestinal region (anorexia, vomiting, diarrhea and exacerbations of duodenal ulcer with perforation and death[29]); (2) in dermatologic complications (skin rashes, urticaria, petechiae, exfoliative dermatitis, erythema multiforme and edema, some deaths having been reported from these allergic manifestations[30, 31, 32]); (3) in hepatic disturbances (deaths having been reported from hepatitis and cholangiolitis[33, 34]); (4) in hematopoietic manifestations (agranulocytosis, aplastic anemia and thrombopenia, with several deaths[35]); (5) in the central nervous system (confusion and coma); and (6) in miscellaneous other conditions. Pancreatitis, myocarditis, nephrosis and adrenalitis usually are diagnosed only at autopsy. Some think the incidence of reaction is related to the height of the blood level of the drug.[36] Others think the reactions, being due to hypersensitivity, have no relation to the size of the dose.[28] Certainly, if the drug is to be administered, the closest supervision is necessary. Blood counts and urinalyses should be done weekly, and prescriptions for the drug should not be renewable.

In spite of all the "crepe hanging," Butazolidin often gives striking relief of pain. Unanimity exists as to this analgesic effect, but opinions differ as to its anti-rheumatic activity.[12] Stiffness of joints is often diminished within 24 hours, and an increase in the patient's sense of well being, appetite and energy occurs. These effects are not mediated through the adrenal axis, for there is no increase in blood level of the steroids, no alteration in blood sugar or potassium and no eosinopenia. Butazolidin is most effective in gout and, to a lesser extent, in spondylitis, rheumatoid arthritis, painful shoulder and osteoarthritis. Major improvement may be expected in 65 per cent of spondylitis cases, in 59 per cent of individuals with rheumatoid arthritis and in 20 per cent of those who have osteoarthritis.[38] In a few of my cases with rather severe osteoarthritis of the spine or knees, the results have been striking, and there has been no recrudescence of symptoms within three or four weeks after the discontinuance of therapy.

Originally, the dose of Butazolidin was 800 mg. daily in divided doses, but nowadays most workers begin with 200-600 mg. per day, and attempt to achieve maintenance with 200-400 mg. per day. In diminishing the dose, some prefer, as I do, to diminish the daily dose, and some prefer to intersperse a day or two of rest between medication days.

It seems, therefore, that the gamble taken with the administration of Butazolidin is much greater than that which is involved in the administration of cortisone, but if one is faced with an individual who has not responded to salicylates or to cortisone, particularly a case of spondylitis, gout or osteoarthritis, a carefully supervised trial of Butazolidin therapy is indicated.[40] It has been my experience that this can be done on an outpatient basis, and that often the length of treatment need not be prolonged.

GOLD

The battle over the efficacy of gold therapy continues to rage, year after year. Some think gold accomplishes nothing,[41] and some think it is most efficacious of all drugs in the treatment of actively inflammatory rheumatoid arthritis,[2, 3] but all are agreed that it has no usefulness in osteoarthritis.

Gold is another potentially dangerous drug. Reactions occur in about 36 per cent of patients receiving their first series of injections. Of those untoward responses, 61.4 per cent are mild, 37.7 per cent moderate, and 6.7 per cent severe. There is, in addition, an 0.5 per cent mortality.[3] Toxic reactions are either dermal, with rashes, exfoliative dermatitis or vesicles; hepatic, with necrosis of the liver parenchyma; hemopoietic, with agranulocytosis or thrombopenia; renal, with nephrosis; or neural, with peripheral neuritis. Reactions usually are gradual in onset and may be counteracted through the use of BAL (2.5 mg./kg. intramuscularly q4h) or cortisone. For minimizing the reactions, Sternberg suggests some routine precautions: (1) weekly urinalyses for albumin and blood; (2) white blood count and platelet count preceding every third treatment; (3) bone marrow aspirations before institution of therapy and after each 1,000 mg. of gold administration; and (4) urine urobilinogen and icterus index (or serum bilirubin) every four weeks.

Products used today include thioglucose in oil (Solganol B—Schering); aurothioglycanide (Lauron—Endo Products); gold sodium thiosulfate (Abbott); and gold sodium thiomalate (Myochrysin—Merck). In deciding which preparation to use, one has little basis for preference, except that Batterman rather leans toward Lauron because he regards it as least toxic.[42] The salts are usually given in doses of 25-50 mg. per week, intramuscularly, until 1,000-2,000 mg. have been given. The injections may then be continued or discontinued, according to the response of the patient. Batterman discontinues medication if no response occurs within six weeks. Eighty-eight per cent of his patients who were able to take the drug had a satisfactory result (41 per cent complete remission and 47 per cent major improvement). In 6,000 cases reviewed from the literature, significant improvement occurred in 51.2 per cent.[3]

I rarely use gold, and then only after other drugs have failed. I am not deterred because of the potential side effects, for if proper precautions are taken and proper early treatment is instituted, dangerous reactions are rare. I hesitate primarily

because of the mechanics of treatment. The patient must make weekly visits to the doctor and is put to the expense of frequent shots and difficult laboratory tests. Other methods of treatment require less frequent and less time-consuming and expensive visits. Finally, I defer the use of gold because the beneficial results of therapy are gradual in onset, and I am never quite sure whether the patient is getting well as a result of treatment or in spite of it.

SUMMARY

The doctor of today may greet his arthritic patient with considerably more optimism than he could ten years ago. He can now assure him that although arthritis is a chronic disease characterized by remissions and exacerbations, there are many potent remedies for the disease. These remedies may be used singly or in combinations to produce the desired effect. It is my feeling that one should begin treatment at the simplest level—namely, with salicylates, physiotherapy and rest. If salicylates fail to give the desired degree of improvement, cortisone or some of its newer cousins such as Meticorten by mouth or hydrocortisone by intra-articular injection may be given. If they fail, Butazolidin may be used, but the doctor must be acutely aware of the dangers of the drug before he prescribes his first pill. Gold injections may be given if all else fails. Many rheumatologists would give gold as the first drug after the salicylates, but the repeated visits of the patient to the doctor's office for shots and complex laboratory tests make the therapy ponderous. The doctor and the patient may therefore rest assured that the arthritic patient of today rarely becomes a cripple, as he used to do, and is usually able to carry out some form of gainful occupation.

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The Prevention of Respiratory Complications in the Tracheotomized Poliomyelitis Patient

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DES MOINES

In recent years there have been numerous articles on the indications for tracheotomy in patients who have pharyngeal and respiratory paralysis due to poliomyelitis. But little has been written in regard to the meticulous technic that must be observed after the tracheotomy if respiratory complications are to be avoided. In this paper, four cases will be presented to illustrate some of the complications we encountered at the Raymond Blank Memorial Hospital for Children, in Des Moines, and though the ensuing discussion is not intended to constitute a thesis on the complete care of the tracheotomized patient, it will take up some of the procedures that have been found to be important in preventing such difficulties.

CASE NO. 1

C. F., a seven-year-old white male, had fever, difficulty in swallowing, nasal twang, weakness of the extremities and stiffness of the back and neck for three days. The significant findings in the laboratory work were limited to the spinal fluid, which was found to contain 170 cells.

The day following his admission, weakness of the neck and deltoids developed. Constant nasal suction was started because of his increased difficulty in swallowing, and on the third hospital day a tracheotomy was done, and the patient was put into a Drinker type respirator. The patient was digitalized, maintenance intravenous fluids were started, and penicillin and streptomycin were given him. Suctioning of the tracheobronchial tree was done as necessary.

During the next five days, the patient was bright and alert, and his color and pulse remained good. But on the eighth hospital day he became less responsive, his color was ashen, and the chest x-ray showed extensive infiltration in the left lung and nearly complete opacity of the right lung. A bronchoscopy was done, and the bronchoscopist reported that the bronchi appeared to be obstructed by edema and granulation tissue. A mucous plug was removed from the left bronchus. After bronchoscopy, there was little change in the child's condition. The following day he was unresponsive. The serum electrolytes were reported as follows: CO_2 combining power 35 mEq., chlorides 88 mEq., sodium 132 mEq., and potassium 6.3 mEq. The patient died that day.

The postmortem findings were limited mainly to the central nervous system and the respiratory tract. There were extensive lesions of the brain stem and of the anterior horn cells of the spinal column. The mucosa of the trachea and bronchi was edematous, injected and covered with a thick, reddish-tan mucoid material. The lungs were two and a half to three times normal weight. There was no crepitus. Both lungs sank promptly when placed in water.

Microscopic sections of the lungs showed almost complete replacement of the air of the alveoli by edema fluid, macrophages, eosinophilic debris and pus cells. The capillaries of the alveolar walls were congested and dilated. One bronchus showed ulceration and degenerating eosinophilic debris on the surface of the mucosa.

CASE NO. 2

The seven-year-old white male R. V. was admitted after one day of headache, nausea, vomiting, facial and upper-extremity weakness, and stiffness of the back and neck. The spinal fluid contained 79 cells, but the rest of the laboratory findings were unremarkable.

On the day following admission, the child was lethargic, his respirations were shallow and there was complete paralysis of his pharyngeal musculature. A tracheotomy was done, and the patient was put into a Drinker type respirator. He was digitalized, penicillin and streptomycin were ordered, and maintenance fluids were given. The tracheobronchial tree was suctioned every 15 to 20 minutes, as necessary, to keep it free from mucus.

During the next three days, the patient was fairly responsive, and his color was good. On the eighth day following his admission, the respirator was opened for ten minutes, his color remained good and physical examination of his chest was reported to be negative.

On the ninth day, the patient developed convulsions which could not be controlled by means of

Dr. Caudill is a resident at the Raymond Blank Memorial Hospital for Children, and his paper won first prize in the essay contest for 1955 conducted by the Iowa Pediatrics Society.

calcium gluconate and intramuscular phenobarbital. He became non-responsive and cyanotic, his temperature rose to 108° F., and he died a few hours later.

The postmortem examination confirmed the diagnosis of bulbar-spinal polio. The trachea and bronchi were filled with a frothy, pinkish-yellow, thick fluid. No bronchial plugs were found. The lungs were three times the normal weight and were reported to have the consistency of liver. The cut surface was wet and red. The microscopic section of the lungs revealed edema fluid in the alveolar sacs, thick alveolar walls and dilated capillaries. In some areas there were pus cells and macrophages within the alveolar spaces.

CASE NO. 3

D. M., a seven-year-old white male, was admitted after two days of fever, nasal twang, difficulty in swallowing and stiffness of the back and neck. An examination of the spinal fluid revealed 240 cells. The remaining laboratory work was within normal limits.

The patient was given intravenous fluids and prophylactic penicillin on the day of his admission. The following day, he was put in the Trendelenberg position, and nasal suction was started because of marked pooling. Oxygen was started on the second day following his admission because of restlessness, increasing lethargy and decreased chest expansion. On the morning of the third day, the patient regurgitated and became cyanotic. Because suctioning was ineffective in clearing the airway, an emergency tracheotomy was done. The patient's color improved immediately. He was then placed in a Drinker type respirator. The postoperative chest x-ray was reported as negative, and Achromycin was added to the prophylactic penicillin.

The patient was moderately responsive until the morning of the sixth day, when he became comatose. A chest x-ray revealed complete atelectasis of the left lung (Figure 1). Bronchoscopy was done, but a follow-up film showed no more than questionable improvement (Figure 2). That afternoon, the patient was put on the rocking bed for ten minutes, and thereafter a large quantity of mucus was aspirated from the tracheobronchial tree and sent to the laboratory for culture and sensitivity tests. The vacuum-cleaner cough machine was then used for the first time, and it was used again at hourly intervals thereafter. The next day a chest x-ray showed the left lung to be expanded, but there was atelectasis of the upper and middle lobes of the right lung (Figure 3). Two days later, the right lung had reexpanded, except for a small area in the upper right lobe (Figure 4).

A pure culture of hemolytic Staphylococcus aureus, coagulase positive, was grown from the aspirations obtained from the respiratory tract and was found to be sensitive to Erythromycin and Chloromycetin. Erythromycin was started immediately.

The rocking bed was used daily, and the patient was coughed four to six times at hourly intervals with the vacuum-cleaner cough machine. Chest x-rays were taken every two to four days, and on the thirteenth hospital day, they were reported to be essentially normal. The follow-up cultures were negative for the staphylococci organisms, but the



Figure 2

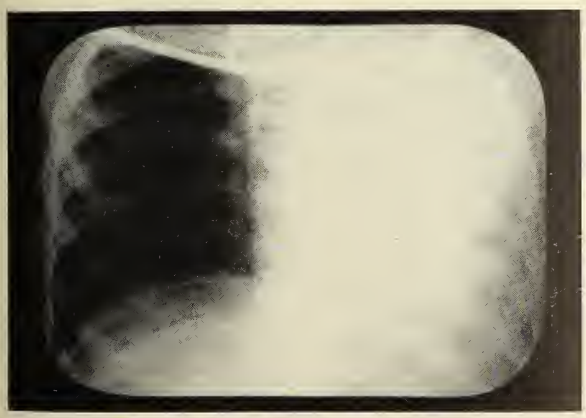


Figure 1



Figure 3

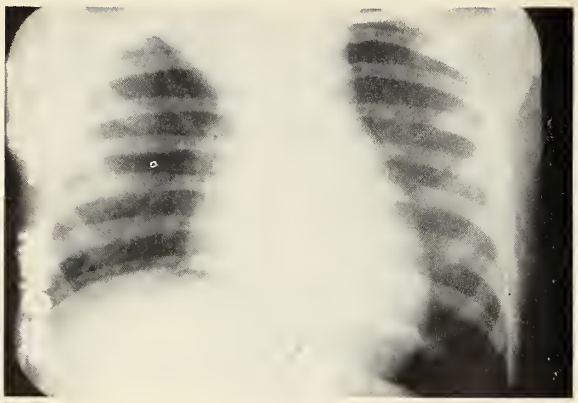


Figure 4

Psuedomonas aeruginosae that were found to be present were treated with the appropriate antibiotic.

On the forty-second day, the tracheotomy tube was removed. The patient remained in the hospital for physical therapy.

CASE NO. 4

H. S., a 14-year-old male, had a two-day history of fever, headache, stiffness of the back and neck, nasal twang and difficulty in swallowing. The examination revealed a poorly reacting palate and pharynx, but no weakness of the extremities.

The patient was put in the Trendelenberg position and was given continuos nasal suction. Intravenous maintenance fluids were started, and the patient was given a daily dose of penicillin as a prophylactic measure. On the third hospital day, there was increased weakness of the pharyngeal musculature. The chest x-ray was clear, and serum electrolytes and pH were within normal range. Aureomycin was added to the intravenous fluids, and penicillin and streptomycin were given intramuscularly.

On the fifth day, a tracheotomy was done because of the patient's increased restlessness, poor chest expansion, and increased respiratory and pulse rates. He was then put into a Drinker type respirator. The chest x-ray revealed an area of infiltration in the left lower lung, and partial atelectasis of the right upper and middle lobes.

Culture of the tracheobronchial flora revealed hemolytic Staphylococcus aureus, coagulase positive. It was sensitive to Erythromycin and Chloromycetin, and Erythromycin was given in appropriate doses.

The patient's respiratory tract was suctioned as necessary, the vacuum-cleaner cough machine was used every one to two hours, and large quantities of mucus were obtained each time. By the ninth day, the atelectasis and infiltration in the chest had improved markedly. The same staphylococcic organism was still present on culture, plus Pseudomonas aeruginosa.

On the thirteenth day, the patient was started on the rocking bed for a period of ten minutes each day. Because there was a persistent elevation of temperature, Chloromycetin was started. Two days later, the patient was afebrile, and the staphylococcic organism could not be cultured from the respiratory flora. A few days after, the chest x-ray was reported as normal.

Nineteen days after admission, the tracheotomy tube was removed. The patient continued to receive physical therapy in the hospital.

DISCUSSION

In the care of these patients, the first procedure —and one of the most important ones—is the adequate suctioning of the tracheobronchial tree. If this type of care is neglected, the bronchi become plugged, and atelectasis follows. Suctioning of the trachea itself is insufficient. To be effective, the catheter must be passed deep into the bronchial tree at intervals adjusted to the patient's individual peculiarities. Those with large quantities of mucus may have to be suctioned every 15 to 30 minutes, but others may need that attention only once an hour or even less often. The frequency must, to a great extent, be left to the discretion of the trained polio nurse.

Gentleness in carrying out the suctioning procedure is of extreme importance, especially in children. Their bronchi are of small diameter, and a little edema due to trauma of suctioning will greatly reduce their surface area, thus not only decreasing the volume of respiratory air, but increasing the possibility of obstruction.

Although one cannot carry out the procedure without some trauma, he can minimize it (1) by suctioning with catheters which have had their tips softened by flaming, (2) by cutting off the suction flow as the catheter is being passed, and (3) by suctioning as infrequently as possible, yet often enough to keep the respiratory tract clear.

Good aseptic technic should be used in the suctioning procedure. Extreme care must be used by the nurse or physician so that the respiratory tract isn't further contaminated. The following simple aseptic precautions should be observed: (1) The individual carrying out the procedure must wash his hands thoroughly. (2) Catheters to be used for suctioning should be kept in a sterilizing solution and should be rinsed in sterile saline before use. (3) Catheters used to suction the nasopharynx must not be used to suction the tracheobronchial tree.

Although the antibiotics are invaluable in the treatment of respiratory infections in the tracheotomized patient, they must be used, as in the treatment of other infections, with some rationale. The common practice of using the antibiotic drugs prophylactically is of questionable value. This point is well illustrated in all four cases that have

been presented in this paper. Likewise, Leppers, Dowling *et al.*,[2] at the University of Chicago, found that "antibacterial agents, singly or in combinations up to more than three agents used concurrently, had little effect in maintaining or producing a sterile trachea." In fact, the flora in many of their patients on whom antimicrobial drugs had been used were relatively unfavorable as compared with the flora of patients who had received no antibiotics. The authors thus concluded that though the prophylactic antibiotics may prevent pneumococcic, streptococcic and H. influenza infections, "the unfavorable alteration of flora which occurs when prophylaxis is attempted probably outweighs the good that may be accomplished."

The unfavorable change in flora of the patients on antibiotics has also been shown by Cairns and Summers.[3] At the time of admission to the hospital, 20 per cent of their patients had resistant hemolytic Staphylococci cultured from their flora. If the patients were put on antibiotic, 90 per cent in four to five days and almost 100 per cent in 10 to 12 days were found to have the hemolytic staphylococcic organisms in their flora. The patients receiving no antibiotics showed only an occasional acquisition of the resistant "hospital Staphylococci."

The hemolytic Staphylococcus aureus was the source of difficulty in our tracheotomized patients, and has been the organism isolated from many of the postoperative infections. Our experience illustrates the dangers that are posed by a virulent hospital organism.

The control of such infections seems to be dependent upon intelligent use of the antibiotics and good aseptic technic to prevent needless contamination. The experience we obtained in working with cases No. 3 and No. 4, and with some others of our patients, like the results reported from the University of Chicago, indicates that if maximum benefit is to be derived from the antibiotics, their choice should be dictated by frequent culture and sensitivity tests.

During the past few years, many mechanical aids have been devised to assist in the prevention of respiratory complications.[4, 5] Three of the most frequently used appliances are the vacuum-cleaner cough machine, the rocking bed, and the positive-pressure machine. During the past year we have used the first two of those tools successfully, and cases No. 3 and No. 4 readily illustrate the assistance that they provided us. Before we employed them, the right lung in case No. 3 was completely collapsed. There was some improvement following bronchoscopy, but the *marked* improvement followed the use of the mechanical appliances. Gratifying results were obtained in case No. 4, too. Vacuum machines are manufactured especially for the Drinker type respirator, but the tank type of household vacuum cleaner can easily be adapted to perform this specialized task. The cleaner hose can be attached to a simple metal plate, and then fitted to the porthole. In the absence of a metal plate, the hose may simply be slipped through the porthole and secured from the inside by a "doughnut" fashioned of sponge rugger. Although this makeshift is not airtight, it suffices and can be assembled in a few minutes. The vacuum cleaner is then turned on, and when the negative pressure in the respirator reaches 40, the bedpan door is jerked open. The patient then experiences a sensation similar to a cough. This is repeated four to six times every hour, and then the tracheobronchial tree is thoroughly suctioned. The amount of mucus obtained is usually gratifying. The use of the cough machine need not be limited to tracheotomized patients, for it is of value in many cases of respiratory paralysis.

The rocking bed was helpful not only in weaning the patients from the respirator, but in keeping the respiratory tract clear and in preventing hypostatic pneumonia. Even during the first week following the tracheotomy, we used it one or two times a day at approximately ten-minute intervals. One must use clinical judgment in determining how soon it may be tried and the frequency and length of the periods that the patient can tolerate it.

When detection of lung pathology is imperative, physical examination of the chest of a respirator patient is not reliable. Therefore x-rays must be taken with a portable machine at regular intervals, and adequate steps must be taken as soon as the changes are noted.

SUMMARY AND CONCLUSIONS

We feel that many of the respiratory complications in the tracheotomized patient can be minimized by the following precautions:

1. Adequate gentle suctioning of the tracheobronchial tree, by means of a good aseptic technic.
2. The use of specific antibiotics as indicated by culture and sensitivity tests.
3. The judicious use of mechanical aids such as the vacuum-cleaner cough machine and the rocking bed.
4. The taking of films with a portable x-ray at frequent intervals to reveal early lung pathology.

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The Problems of

Spontaneous Abortion in Private Practice

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CEDAR RAPIDS

In the past few years much has been done to increase fetal salvage in pregnancies ending at or near term. Some reasons for this are (1) better technic in the care of the premature, (2) early diagnosis and adequate treatment of erythroblastosis fetalis and, perhaps most importantly, (3) the better prenatal guidance and care which has done much to prevent complications during pregnancy.

Our greatest fetal wastage at present is in spontaneous abortions, or—as we ought rather to call them when we are talking with our patients—miscarriages. In private practice, this condition is one that requires psychologic as well as medical treatment. Evidence of the fact that every woman who has had a miscarriage feels she has lost a child is to be found in the phraseology she adopts in speaking of the matter. More likely than not, she can be heard to say, "I lost my baby when I was two months along."

It is not the purpose of this paper to evaluate the methods that have been proposed for preventing spontaneous abortion, further than to point out that none of them seems to have been noticeably effective. In spite of everything that has been tried, the percentage of pregnant women who miscarry has remained virtually constant.

In 1938, Malpas[1] stated that 18 per cent of all pregnancies ended in spontaneous abortion, but some doubt existed as to the accuracy of his figures, and in 1950 the English Biological and Medical Committee[2] concluded that 7-11 per cent would be a much better estimate. Those latter figures agree rather well with the findings that Hertig[3] had made in 1944. Hertig summarized the work of five American authors, reported on an additional 1,150 pregnancies and came to the conclusion that the average incidence of spontaneous abortion was 9.8 per cent. Other authors at about that same time reported similar percentages.

INCIDENCE IN THE AUTHOR'S PRACTICE

About 21 months ago, I began keeping records on the pregnant women whom I attended myself. Table 1 shows that of the 991 pregnancies that I have supervised during the ensuing period, 97 (9.8 per cent) ended in spontaneous abortion.

Here we are, 10 or 15 years after the reports that Hertig summarized and five years after the British report to which I referred, finding almost precisely the same percentage of abortions. It is

TABLE 1

Number of pregnancies	991
Number of spontaneous abortions	97
Percentage of abortions	9.8 per cent

apparent that we do not entirely understand the etiology of the condition. Some of our ideas must be erroneous.

One of our mistakes is the idea that most spontaneous abortions are due to a faulty embryo. That, in my opinion, is an explanation in which few obstetricians really believe. If most of them had faith in that theory, why would they work so hard to prevent threatened miscarriages?

Eastman[4] has written many times that from 50 to 80 per cent of all abortuses show abnormalities that would have precluded life or would have caused the children to be deformed if the pregnancies had continued to term. His book EXPECTANT MOTHERHOOD is read by many expectant women, and when one of them barely escapes miscarrying, she is quite unjustifiably made to expect that her child will be defective in one way or another. In general, his book is a good one, and I give a copy to each new patient. Yet, I regret that statement and hope that the author sees fit either to omit it or to change it in his next edition.

I am by no means sure that either the microscopic or the gross examination of an early abortus furnishes a basis on which anyone can say that abnormalities would have developed if the pregnancy had continued to term. There is usually too much degenerating tissue, for one thing.

If faults in the germ cells were responsible for most instances of spontaneous abortion, wouldn't we have a higher percentage of repeated abortions? It would seem quite logical that in most such cases the germ cells would be chronically or recurrently faulty, bringing about one miscarriage after another. In my own practice I have seen this to be true, and I have advised each of my patients who has had more than one miscarriage to persuade her husband to submit to a sperm test. In 70 per cent of these cases, abnormal sperm counts have been found (Table 2).

Dr. Miller presented this paper at a short course on obstetrics at the SUI College of Medicine, in Iowa City, during November, 1955.

TABLE 2

Patients who had more than one miscarriage	7	
Causes		
Ovarian cyst with second miscarriage	1	
Pulmonary tuberculosis	1	
Abnormal sperm count	5	(70 per cent)

Another fact which makes me question the high rate of abnormal fetuses seen by some of the writers who have discussed abortion is that in the 5,000 deliveries that I have performed, I have seen only one deformed child born to a patient who had threatened to miscarry but delivered at term. And that infant's deformity was no more than a reparable hare lip. In one other instance, a fetus with multiple deformities was delivered at about 22 weeks' gestation. In that case there was an abnormal sperm count, and after several years' treatment of the husband, a normal baby was obtained.

A total of 144 cases in my series either threatened to abort or did so. Forty-seven of them were treated successfully and delivered normal babies (Table 3). None of those infants had any congenital anomaly, and according to a recent article by Javert[5] no more than 1.5 per cent of infants born at term to mothers who have threatened to miscarry have abnormalities.

TABLE 3

Total of threatened and actual abortions	144	
Number of patients not aborting	47	
Salvage percentage	32	per cent

The salvage percentage shown in Table 3 is very low. The explanation may be that many of the 144 cases were complete, incomplete or inevitable abortions when I first saw them, and of course in those instances there was nothing I could do to save the pregnancy.

Table 4 shows the corrected salvage rate to be 47 per cent. This is still a very low percentage, but it must be remembered that all patients were treated unless they had passed tissue, had passed the fetus, or had had hemorrhage so severe that conservative treatment was hazardous.

TABLE 4

Total number treated	100	
Aborted	53	
Salvaged	47	
Per cent saved	47	per cent

Probably many of my patients were already inevitable abortions when I first saw them. However, a pelvic examination was never done unless there was obviously no chance of saving the pregnancy. A pelvic examination at this time probably does no more than add insult to injury, and most of the patients had had pelvic examinations prior to the onset of the symptoms. Where there was any doubt of pregnancy, a frog or rabbit pregnancy test was done while the patient was being treated.

The treatment used for these patients consisted of bed rest and a combination of stilbesterol, vitamin E and progesterone. No pregnanediol studies were done to determine whether or not progesterone was indicated in the treatment. Most of the patients were kept in the hospital 48 hours after the bleeding or brownish discharge had stopped, and were continued on stilbesterol and vitamin E until they either aborted or went beyond the third month of gestation.

There is always a question as to whether a dilatation and curettement is necessary in the patients who abort. Of course, it must be done when bleeding is so excessive as to be dangerous to the patient. In this series, 79 (79 per cent) did have dilatations and curettements. Some authors have recently claimed that the D and C causes harm to the endometrium in these cases. Others have said it should always be done. I have been unable to detect any harm from them, and it is much easier for the doctor to do them routinely because there is obvious doubt about whether they may not have to be done later as an emergency procedure. All patients should be warned of the possibility of hemorrhage or of a bloody discharge over a long period of time if a D and C is not done. Such an episode might cause anxiety for the patient, and, in any case, I believe that the knowledge that everything has been "cleaned out" serves to reassure her.

My incidental findings in eight cases are worthy of mention. One patient was suspected of having had a criminal abortion, but proof was lacking. One had polio in her second month and aborted. Two threatened to miscarry and later had to have curettements for missed abortions. There were four patients in the series who were first diagnosed as incomplete abortions because they had passed decidual tissue. Each of them had a D and C, and decidual tissue only was obtained. They were all later operated upon for ectopic pregnancies. Usually, decidual tissue without placental tissue is pathognomonic of ectopic pregnancy.

CONCLUSIONS

1. This group of patients indicate quite clearly the accurate percentage of miscarriages, for most of them report very early for prenatal care in my type of practice. Also, most of them belong to a class of people who want to have children and are thus inclined to report bleeding promptly.

2. Some doubt should be raised as to the idea that abortion is the result of defective products of conception.

3. The male germ cell should receive more attention than has been given it as a cause of spontaneous abortion.

4. Routine dilatation and curettement following

a spontaneous abortion is probably best, from the point of view of the physician and from that of the patient.

5. If only decidual tissue is obtained in a D and C, an ectopic pregnancy is quite likely to be present.

6. *Abortion* is an ugly word, and it would probably be better for us to use the word *miscarriage* when we are talking with our patients.

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Neurologic Disturbances Complicating Diabetes

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DES MOINES

THE OCCURRENCE of specific disorders of the nervous system as a complication of diabetes has been recognized for 90 years. Nevertheless much still remains unknown about the etiology and pathology of diabetic nerve lesions. On the basis of the accumulated evidence, one fact alone seems to stand out—that the disturbances in nutrition which accompany long-standing and poorly controlled diabetes are the usual precipitating factors. In several series of cases that have been reported, the patients recovered without medication, simply through the maintenance of strict control for a period of from one to five years. In the search for other possible etiologic factors, arteriosclerosis has often been incriminated, yet it can hardly be the cause of the typical acute, reversible neuritis that is found in young diabetics. Vitamin deficiencies, especially of B-12, B-1 and perhaps other fractions of the B complex, have been suspected. But their role remains only speculative, despite the many instances in which recovery has followed vitamin administration.

Can the pathologist help us in our effort to understand the underlying defect in diabetic neuropathy? Very little, since typical diabetic neuritis is reversible, rather than fatal. Woltman and Wilder* have, however, described a degenerative and irreversible type in which they saw areas of degeneration in peripheral nerves associated with thickening in the walls of nutrient vessels, together with slight spinal cord change, chiefly in the posterior columns.

Can we get any help from the biochemistry laboratory? Chemical analyses of peripheral nerves from diabetics disclose a lower content of phospholipid, cholesterol and cerebroside than is to be found in the peripheral nerves of control individuals. But the significance of this finding has not as yet been clarified.

Thus, in view of our ignorance of the fundamental fault that underlies diabetic neuropathy, we are unable to arrange a classification on an etiologic basis. For want of a better classification, we must be content with the following dichotomy based upon the sites of nervous system involvement:

(1) Peripheral neuritis

(2) Autonomic neuropathy

Peripheral neuritis is characterized by aches, pains, cramps, tingling, burning or numbness of the feet and legs, and less often of the trunk or arms. It is often accompanied by weight loss, weakness, unsteadiness of gait, necrotic ulcers of the feet, and, though rarely, by foot or wrist drop. Objectively, one finds diminished deep-tendon reflexes and areas of hyperalgesia, hypesthesia or anesthesia. The most advanced form of this lesion is the neuropathic foot, with complete loss of sensation and with destruction of bone. Autonomic neuropathy may produce diarrhea, obstinate constipation, bladder disturbances with impaired sphincter control and painless retention, dependent edema due to altered permeability of capillaries, and a reduction in function of sweat and sebaceous glands which leads ultimately to shiny, atrophic skin.

CASES

To illustrate the commonest ones, though not necessarily all, of the manifestations of diabetic neurologic disease, I have prepared a brief summary of 18 fairly classical cases from my practice (Table 1).

Case No. 1 is a 54-year-old farm implement deal-

Dr. Lueck read this paper at the SUI Institute on Diabetes, in Iowa City on November 6, 1955.

* Woltman, H. W., and Wilder, R. M.: Diabetes mellitus; pathologic changes in spinal cord and peripheral nerves. Arch. Int. Med. 44:576-603, (Oct.) 1929.

er who developed severe leg pains after four years as a diabetic and who admitted to poor control during the preceding year. The pains were superficial, burning and constant, involving both anterior thigh areas. His deep knee reflex was diminished, and his ankle jerk was absent bilaterally, but there were no other symptoms or findings of note. With proper diet and a change in insulin timing, good diabetic control was established. At that time, Biohepulin was enjoying some popularity in the treatment of neuritis, and he was given an adequate trial of it by injection. No noteworthy relief from the pains was forthcoming during the half-year period of improved control that included two weeks of daily Biohepulin injections, so he was referred to the Mayo Clinic for consultation. The doctors there had nothing further to suggest. After about a year, he began to be more comfortable. As this is written, he has been followed over a period of 27 months and has been almost free of pain since February, 1952.

Case No. 2 was a 74-year-old automobile dealer whose severe leg pains and foot numbness also began four years after the onset of his diabetes. During the 18 months preceding his first visit to our office his control had been poor, and he had lost 13 pounds. His knee jerks were diminished, and his ankle jerks were absent. He was completely disabled and had not worked for over two months. Control of his diabetes was established as quickly as possible, and he was taught to inject 100 micrograms of vitamin B-12 daily himself. No improvement occurred during the first two months on this regime, but after that he gradually felt better, and by the end of four months he was able to resume work on a half-time basis. At the end of two years, during which period he took B-12 twice a week, he was free from discomfort most of the time, but then he died suddenly of a coronary occlusion.

Case No. 3 is a 68-year-old widow with the most severe pains in the thighs and trunk that I have seen. During the 12 years that she had been a diabetic, her control of the disease had always been good, though she had lost seven pounds in the course of a few weeks just preceding her first visit at our office. She was hospitalized and had to be kept comfortable with Demerol or codeine. Orthopedic and neurologic consultations were obtained, and the only objective findings consisted of diminished deep-tendon reflexes in the legs and superficial hyperalgesia of the lower back and abdomen, and of the thighs and legs to the ankles. On the second hospital day, she developed a left Bell's palsy. Because the diabetic management was already excellent and not to be improved upon, she was started on daily B-12 injections. After three weeks in the hospital, she began to have some little relief from the pain, and she was sent home on the same therapy. Now, 14 months later, she is

Case Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Sex and Age		M54	M74	F68	F58	F61	F66	F62	M44	F20	M54	M36	F32	M48	M20	F64	M19	F33	F22
Duration of Diabetes (Years)		4	4	12	13	7	1	20	5	16	16	7	8	11	11	12	2½	16	11
Poor Control	Degree	++	+++	o-+	+++	o	+++	++	+++	+v	++	++	++	++	++	+	+v	+++	+-++
	Years	1	1½		5		1	5	3	6+	½	5	4	8	5	6+	2½	5+	11
Weight Loss (Lbs.)			13	7	16			5	20		10	18	15	25		6	10		
Pain	Severity	+++	+++	+v	++	+	++		+v	++	+++	+++							
	Legs	✓	✓	✓	✓	✓	✓		✓		✓	✓							
	Arms																		
	Trunk			✓						✓		✓							
Numb Feet			✓										✓						
Foot Ulcers																			
Reflexes	Knee	+	+	+	+	+	+	++	o	++	o	o	o						
	Ankle	o	o	+	o	o	o	++	o	++	o	o	o						
Diarrheo											✓			✓	✓				
Constipation and Gas										✓	✓	✓	✓			✓			
Postural Dizziness											✓		✓						
Vesical Disfunction													✓			✓	✓		
Impotence											✓	✓	✓						
Edema																	✓	✓	✓
Atrophic Skin																			
Other				Bell's				LC3											
Therapy	Duration (Months)	27	24	14	8	14	20	14	22	15	25	36	28	22	20	26	24	26	20
	Improved Control	✓	✓		✓			✓	✓		✓	✓	✓	✓	✓	✓		✓	✓
	B12		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clinical Improvement		+++	+++	++	+++	+++	o	+++	++	++	+++	+++	++	+++	+++	T.U.R.	o-+	+v	+v

still uncomfortable, but requires no narcotics, and the Bell's palsy has decreased about 50 per cent.

Case No. 4 is a 58-year-old housewife who had had diabetes for 13 years when her neuritis began. She admitted to a five-year period of lax control, during which she had omitted insulin for long periods despite heavy glycosuria. She complained of shooting pains in both legs and thighs. Her knee reflexes were diminished, and the Achilles reflexes were unobtainable. Specific therapy consisted of clearing the glycosuria by means of a diet and insulin, and the self-administration of B-12. In the eight months since these measures were instituted, she has regained her 16 lost pounds and now has only occasional shooting pains of a milder nature.

Case No. 5 may not be sufficiently typical for inclusion in this series, but is so unusual that I think my readers will find it interesting. A 61-year-old housewife had had diabetes for seven years and had always been sugar-free on diet alone. Then, one day, she came in complaining of burning pains in the anterior skin of her thigh. Examination revealed only some diffuse hyperesthesia, but the ankle jerks were absent, and the knee jerks were diminished. She was referred to a neurologist, and he concluded that she must have a neuritis, possibly diabetic in origin. She was started on self-injection of B-12, and two days later phoned to announce that her pains had disappeared. Since that time, however, they have recurred frequently, and each time they have persisted until she has resumed the injections.

Case No. 6 is a 66-year-old housewife who came under my care when her diabetes was first discovered. She was completely uncooperative, refusing to take the diet seriously and even more obstinately refusing to take insulin. Her postprandial blood sugars averaged 275-350 mg., and her urine was never sugar-free. The record shows that she had active and equal deep-tendon reflexes in the beginning, but a year later, when the leg and thigh pains began, her lower-limb reflexes were markedly diminished. Since then, another eight months have elapsed. She still refuses to diet or to take insulin, and of course she still suffers with the pains. One wonders why she continues to come to my office.

At this point it might be well for me to mention that concurrently with whatever improvement the patients noted subjectively, we found a tendency for the deep-tendon reflexes to become more active, though they seldom approached normal.

Case No. 7 presented a somewhat unusual finding. The patient, a 62-year-old widow, took good care of her diabetes until her husband died, but then for five years was careless. She came in with an external strabismus of the left eye, and could add nothing to the history beyond mentioning a five-pound weight loss in recent weeks. She was referred to a neurologist and an ophthalmologist for consultations, and both of those physicians felt that the left third cranial nerve paresis was of diabetic origin. In two months after reestablishment of diabetic management, plus vitamin B-12, the strabismus disappeared. After 14 months, it has not recurred.

Case No. 8 is a meat cutter who had known of his diabetes for five years, but despite the pleadings of his physician he had paid no attention to it for three years before coming to see me. He had lost 20 pounds, and his leg and thigh pains had completely disabled him, preventing his working at his occupation. The muscles of both lower extremities were weak and atrophic, and the reflexes were unobtainable. He was immediately started on an adequate diet, on an insulin program and on vitamin B-12. In the 22 months since then, he has regained about half of the strength of his leg muscles; though he still has pains, they are less severe; and he is back at work four hours a day.

MIXED PERIPHERAL AND AUTONOMIC

It is now time for me to point out that the first eight cases listed in Table 1 are examples of peripheral neuritis. The next four are examples of mixed peripheral and autonomic neuropathies, and the final six are instances in which the pathology is confined to the autonomic nervous system.

Case No. 9, a 20-year-old girl, had had diabetes since she was four years old, and had been exceedingly careless throughout the most recent six years. She had developed a band of hyperesthesia and hyperalgesia around the left lower ribs anteriorly, and in that same period of time had noticed a pronounced increase in constipation and bloating. She is so uncooperative that it has been impossible for me to improve her diabetic control, but having her take B-12 intermittently has produced subjective improvement in both symptoms.

Case No. 10, a 54-year-old male court reporter, had diabetes of 16 years' duration. His control appeared to have been lax for no more than six months before he developed severe leg and thigh pains, nocturnal diarrhea with alternate spells of constipation and gas, postural dizziness with attacks of syncope, and impotence. He had been treated elsewhere for chronic nervous exhaustion and irritable colon. It was necessary for me to start his therapy for neuropathy in the hospital, where we learned that his former insulin program was allowing him to spill heavy glycosuria with traces of ketonuria during the night. After this difficulty had been corrected, he began to feel stronger, but the neuropathic symptoms showed no sign of abatement during the three weeks of his hospitalization, which included a ten-day course of Biohepulin injections. To save expense, he was sent home and was treated there with codeine as

indicated. The pains began to subside after two months, but the autonomic symptoms remained disabling for another month. Because the entire syndrome was improving at the time that B-12 was added to the program, we were unable to define its role in his subsequent fairly good recovery. At present, over two years since his worst troubles began, he is back at work and complains only of occasional dizziness and persistent impotence.

Case No. 11 is a 36-year-old farmer with diabetes of seven years' duration. It was difficult to control because of brittleness for five years before he became disabled by leg and trunk pains and was bothered by constipation and gas, and impotence. By means of close attention to diet and insulin timing, he succeeded in establishing somewhat better diabetic control, but he failed to improve clinically. He was referred to the Mayo Clinic for assistance, but at that time all that the Rochester physicians could offer him was reassurance that good control would eventually bring him relief. That prediction was fulfilled to the extent that he was able to resume light work about seven months later, and his progress has been steady ever since. When B-12 became popular, it was added to his regime, but made no striking change in the picture. He has regained 14 of the 18 pounds that he had lost, and he is now able to do about three-fourths as much work as he could before the neuropathies began. The impotence remains. His deep-tendon reflexes, totally absent in the beginning, are now obtainable, though they are far from brisk. The same is true of case No. 10.

Case No. 12 is a young woman who literally fell apart from the ravages of diabetes. She had developed the disease at age 24, maintained good control for about four years and then became a bit careless. At the age of 32, both of her feet were numb, she was losing weight, she was having frequent fainting spells, she had troublesome constipation with gas, and she was impotent. The knee and ankle reflexes were both absent, and a general physical examination revealed a lower-abdominal mass that filled the pelvis up to the level of the umbilicus. A catheter introduced into the bladder facilitated the withdrawal of 2,600 cc. of urine, and the mass disappeared. After establishment of better control of the glycosuria, she began to gain weight, her urinary retention receded to normal in a few weeks, and the postural hypotension subsided. In February, 1954, she was in a minor automobile accident and injured her left foot. Because it seemed to get well without medical attention, she forgot about it. Six weeks later, the foot became red and swollen, but she felt no pain because of the numbness. It progressed to a massive infection that was not controlled by antibiotics, and she became critically ill. When an x-ray of the foot revealed marked bone destruction, a below-the-knee amputation was decided upon and was performed. At the present time she has a numb right foot, uses an artificial left leg quite well, has regained normal weight and has no urinary residual, but is still impotent. Vitamin B-12 was added to her regime at the time when her infected left foot was first examined.

AUTONOMIC NEUROPATHIES

The remaining six cases in this series present features of neuropathy seemingly limited to the autonomic nervous system. Case No. 13 is a 48-year-old man whose diabetes had never been easy to manage and had been particularly brittle during the most recent eight years. He developed nocturnal diarrhea averaging four to six stools each night, and he had lost 25 pounds before his first visit to our office. There were no other symptoms or findings of note. His proctoscopic examination and colon x-ray were entirely normal. He was intelligent and cooperative, and after much juggling of the insulin, we finally brought his diabetes into fair control by means of a mixture of equal parts of PZI and regular insulin before breakfast and supper. He was also started on daily B-12 injections. His progress over the ensuing 22 months has been tedious but definite. At his last office visit, he stated that he has one loose stool on most nights, but sometimes none. He has regained nine pounds.

Case No. 14 is a 20-year-old pharmacy student whose diabetes began when he was nine years old and had been hard to control for about five years before he came to us. He complained of nocturnal diarrhea consisting of one loose stool during the night and another when he got up each morning. A colon x-ray was negative. His insulin timing was changed, and he was started on B-12 injections, with the result that his diarrhea cleared in six weeks. Now he has only an occasional loose morning stool.

Case No. 15, a 64-year-old woman, is a patient in whom medical measures fail to produce a result. She had had diabetes for 12 years before her neuropathy began, and for more than half of that time she had not maintained ideal control. She came in to find out why she had lost six pounds. A mass almost the size of a football was found in her lower abdomen. It disappeared when a catheter had yielded 2,900 cc. of urine. The patient also gave a history of increased constipation. Her diabetic management was corrected as meticulously as possible, and she was seen periodically during the following year. Although the bladder never again reached the size it had when it was first palpated, she continued to carry a large residual, and she had pyuria despite the addition of B-12 to the regime. During the past 14 months, she has had a four-stage transurethral resection of the bladder neck, and at this time has a 150 cc. residual and persistent pyuria.

Case No. 16 was a 19-year-old boy who had neglected his diabetes as thoroughly as any patient could possibly do. After two and a half years of such carelessness, he began to notice that he urinated only once a day, a large quantity at a time. At the first office visit, his bladder was palpably enlarged, and after he had voided 1,600 cc., his bladder could no longer be felt. Because our attempt to improve his diabetic management was futile, his vesical dysfunction did not change. A month later, he came to the office with a marked edema of the legs, trunk and face, and he had gained 21 pounds. A low-sodium diet and mercurials were effective within a few days thereafter, and he was coerced into taking B-12 injections, but soon discontinued them of his own accord. After that, he learned that he could stop edema formation by omitting salt from his diet for a few days. In August, 1954, he was found dead while away visiting his aunt. The exact circumstances of his death have never been made available to me.

Case No. 17 is another instance of generalized edema, this time in a 33-year-old housewife with diabetes that had begun when she was 17 years of age. For five years prior to the episode of her edema, she had been too busy rearing her children to take care of her diabetes, despite the knowledge that she ran a heavy glycosuria much of the time. Concomitant with the development of puffiness in her legs, arms and face, she noticed a weight gain of 13 pounds. She was treated as an office patient, with strict control of the glycosuria and with B-12. The edema subsided over a period of three weeks and has not recurred since. It is realized that this case may represent what has been called "insulin edema," a condition associated with fluctuations in the osmotic pressure of body fluids that accompanies wide variations in the blood sugar level. This, however, usually occurs right after lower levels of blood sugar have been achieved, and such was probably not the case in this patient.

Case No. 18 is quite similar. She is a 22-year-old single girl with diabetes that had been brittle since its onset when she was 11 years of age. She presented herself with edema of the face, arms, trunk and legs, having gained 12 pounds over a period of a few days. Her diabetes was brought under the best possible control, and she was started on B-12 injections. The edema subsided within a week and has not recurred since then.

A glance at the chart will show that none of the patients in the series had foot ulcers. The number of diabetics that I see with necrotic foot ulcers far exceeds all the other neuropathies combined, but they are not as a rule examples of pure nerve lesions, since they are also a consequence of occlusive vascular disease. Thus, since foot ulcers are probably mixed lesions, they are not included in this limited series.

A few remarks concerning therapy of this stubborn condition, pure diabetic neuropathy, are in order. Little therapeutic success will be realized without great patience and persistence. The victim needs to be told at the outset that he is in for a long pull. The day-to-day or week-to-week improvement may be imperceptible, yet he can be promised relief if he will stay with the management. When, after visits to several physicians, the patient is finally given the correct diagnosis, he is often willing to bestow his full confidence upon the doctor. Many diabetics with neuritic leg pains have carried a mistaken diagnosis of arthritis for some months. Abdominal distress due to autonomic neuropathy has been mistakenly diagnosed as colitis or irritable colon, and diabetic patients with edema may be taking thyroid extract for something like myxedema.

Some of this drifting from doctor to doctor is a consequence of the public's high expectations in these days of miracle drugs. If a quick cure is not forthcoming, the shopping continues. Such a patient may wander until he is down and out financially as well as physically. In two of the 18 cases in this series, my chief reward, after months of stern management, has been the satisfaction of returning previously incapacitated patients to their occupations. Some of course—ones not included in the series—began recovering so imperceptibly that they drifted away to other offices.

CONCLUSION

Diabetic neuropathy is not uncommon, but is diagnosed less frequently than it should be. The incidence of this complication has been variously reported as from 25 per cent to 93 per cent. It is important to the patient that he be given the correct diagnosis so that he may be led over the long, tedious road back to fairly normal comfort and vigor.

The therapeutic implements at hand are few: (1) improved control of the diabetes, and (2) some fractions of the B complex vitamin, especially B-12, though they are of questionable efficacy.

The lesson learned from this small series of cases prompts me to make a strong plea for good diabetic management for the correction or prevention of neuropathy. Though no testimonial for vitamin B is intended or should be deduced from my clinical results, it is my impression that for the present it should be used. Practically all diabetics with neuropathy are taking insulin, or should be, and they can easily inject vitamin B-12 once a day for themselves without great cost. Most of our cases are also taking two or three B-complex capsules orally each day. Beyond these measures, nothing on the horizon holds any promise of significance.

Adolescent and Pre-Adolescent Gynecology

WILLIAM C. KEETTEL, M.D.

IOWA CITY

It is surprising how often gynecologic problems are encountered among adolescents. Usually these complaints are of minor significance, but occasionally they are of major importance. Thus they should all be carefully investigated, and in any case, they should be fully explained to the patient and her mother so that they may provoke no emotional complications. Space does not permit a detailed discussion of all the entities of this sort that may confront the physician, but four of the commoner ones will be presented.

Pre-adolescence		Pseudohermaphroditism congenital
		Vaginal discharge foreign body
Adolescence		Breast changes unilateral
		Precocious puberty
Puberty	*Estrogen*	Ovarian agenesis
		Acquired virilism
		Hematocolpos
		Menometrorrhagia
Maturity	*Estrogen + progesterone*	Vaginal discharge tampons
		Dysmenorrhea

For the sake of clarity, I should take pains to define *adolescense* and *puberty*. The term *adolescence* designates the period that starts with the beginning of sexual development and ends with adult maturity, whereas *puberty* refers to the onset of menstruation.

VAGINAL DISCHARGE

Frequently a mother brings in her pre-adolescent daughter because of a vaginal discharge. Formerly, a Neisserian infection was considered the usual cause, and many children were diagnosed and treated without proper investigation. Today, that type of infection is uncommon, but still it must be considered a possibility and must be looked for. The genital-tract involvement produced by a Niesserian infection is peculiar in the pre-adolescent, since the vaginal epithelium consists of a thin mucous membrane only a few cells thick. Thus the vagina is easily infected and is the only site involved. In the adult female, on the other hand, the thick vaginal mucosa is not infected, but the cervical glands, Skene's glands, and the tubes and ovaries are the sites most frequently involved. Today, the treatment of a Neisserian infection is relatively simple, and with proper antibiotic therapy the lesion can be quickly eliminated.

One should suspect the presence of a foreign body whenever he encounters an unexplained vaginal discharge that does not respond to treatment. All types of objects have been recovered from the vagina. Occasionally, vaginal tampons are pushed up into the vagina and are forgotten, later on producing a profuse, offensive discharge. Rectal examinations are of little value in the detection of foreign bodies, but a uterine sound placed in the vagina may be of help in detecting metal objects. A small nasal speculum or urethroscope may be of great value in the visualization of the vaginal vault, but if such an instrument cannot be inserted, an examination under anesthesia may be required. The removal of foreign bodies will quickly cure the vaginitis and end the discharge.

Trichonomas and monilia infections, though common in adults, are rarely encountered in adolescents, and are not encountered prior to puberty. A chronic irritating discharge must be examined in a hanging drop and by culture if one is to determine whether trichonomas or monilia are present. In visualizing the cervix of an adolescent, one occasionally encounters a reddened area around the external os which is called a congenital erosion. Most authorities feel that this condition does not produce symptoms and that no treatment is required. Since the incidence of malignancy is negligible, cervical biopsy or vaginal cytology is unnecessary.

It has been my experience that many vaginal discharges encountered in adolescents are of a nonspecific type. If no foreign bodies are found and if the vaginal smears and cultures are negative, the difficulty is most likely a mixed infection. An 0.5 mg. stilbestrol suppository used nightly for 20 days is a very effective method of treatment. The mother can be taught to introduce such a suppository without difficulty. This type of therapy will cornify the vaginal mucosa and quickly eliminate the infection.

SEXUAL MATURITY AND DEVELOPMENT

When a girl is five or six years old, her parent may notice the beginning of breast development in her. Later, pubic and axillary hair appears, and cyclic vaginal bleeding occurs. Until recently, this uncommon iso-sexual development was considered due to a granulosa-cell tumor of the ovary, and abdominal exploration was recommended, even though no ovarian enlargement was apparent. We are indebted to Novak[1] for describing the above entity as a manifestation of precocious puberty. He feels that these changes represent early sexual maturity and that the basis is genetic rather than indicative of ovarian or pituitary abnormalities. The subsequent development of these individuals is normal and uncomplicated, and no treatment is required.

Disturbances in sexual maturity and development are of frequent concern both to the girl and to her mother. Breast development is of particular importance, and many normal variations are likely to be regarded as abnormalities. During adolescence, the girl may be brought in by her mother because of unilateral breast enlargement. No treatment is needed, for the other breast will soon develop normally. Under such circumstances, it is wise for the physician to point out that a minor difference in the sizes of the two breasts is not uncommon and has no significance.

Because of the great importance that the modern female attaches to the development of her breasts, the young woman with hypoplasia of the breasts may suffer serious psychic difficulty. She feels that she lacks the sexual attractiveness that is essential for her future happiness. A physician can accomplish a great deal by pointing out the important aspects of this problem. From a medical standpoint, if the young woman is menstruating regularly, additional breast development cannot be produced by hormonal therapy. Estrogen therapy may produce a temporary psychological benefit, but ultimately it may lead to menstrual irregularity without producing any significant change in breast size. If the breasts are pendulous and excessive in size, plastic surgery may be employed with satisfactory results.

A detailed discussion of pseudohermaphroditism is beyond the scope of this paper, but there nevertheless are several points bearing upon that subject that need emphasis. In the past, many such individuals have been mistakenly reared as boys. Today, with improved hormonal studies and skin biopsies, one can accurately determine the sex at birth, and the child can then be properly reared.

This type of congenital defect is usually caused by congenital adrenal cortical hyperplasia. At birth, such individuals are characterized by an enlarged clitoris which resembles a small penis with a hypospadias. The gonads and scrotum are not visible. A vagina is not visible, and the urethra is located directly below the clitoris. If one investigates this orifice with a urethroscope, he finds it to be a urogenital sinus with one opening leading to the bladder and the other to a small vagina. A 24-hour urine specimen will contain excessive 17-ketosteroids, and if repeat studies confirm that finding, cortisone therapy is indicated. It is wise to wait until puberty before reconstructing the perineum surgically.

In the acquired type of adrenal cortical hyperplasia, the sexual development is normal. The changes produced by the high androgen levels consist of an enlarged clitoris, hirsutism of the male type and, if the patient is menstruating, amenorrhea. The acquired form of adrenal cortical hyperfunction may result from carcinoma, adenoma or delayed hyperplasia of the adrenal cortex and although rarely, from an ovarian tumor. It should be noted that from the time of birth until the age of 12, virilism of the female is most frequently caused by an adrenal tumor. Taylor[2] has pointed out that beyond age 12 an acquired virilization is just as frequent from hyperplasia as from an adrenal tumor.

A patient with a small uterus is often told she has an infantile uterus, and no further explanation is given her. In consequence, the young woman may feel that she is sexually undeveloped and therefore should not marry, since she would not be capable of child bearing. Actually, an infantile uterus is not found in women with normal menstrual function. The girl who has well-developed breasts and secondary sex characteristics and who is menstruating regularly should be classified as having normal uterine development, even though the uterus may seem small. Any form of endocrine therapy is contraindicated in such a patient.

ANOMALIES

The vulva and vagina are areas in which congenital anomalies may occasionally be encountered. In one syndrome, sexual development is apparently normal, but amenorrhea is present beyond the age at which menstruation commonly begins. When one examines the patient, he notes that the hymen is bulging and that there is a bluish sheen or discoloration of the imperforate hymen. Occasionally, there may be an abdominal mass produced by a hematocolpos or hematometra. Simple incision of the hymen under anesthesia and removal of the old blood will effect a cure. Even though it has been enlarged and distended, the uterus will then quickly return to its normal size and function.

Another type of anomaly, the congenital absence of the vagina, presents the same clinical syndrome. Individuals with this deficiency have normal external genitalia and well-developed secondary sex characteristics, and an exploratory laparotomy will reveal normal tubes and ovaries. But one fails to find a uterus. A complete investigation of the urinary tract is advisable in such

individuals, since anomalies of the kidneys or ureters are often present. Any plastic surgery is best postponed until the patient is ready for marriage. In the reconstruction of an artificial vagina, one makes an opening in the perineum between the urethra and the rectum, being careful to avoid the bladder, the rectum and the peritoneal reflection of the cul-de-sac. After he has enlarged the opening and ligated the bleeding points, he should suture a plastic obturator into place and cover it with a split-thickness graft. Thereafter, excellent growth of tissue occurs, with rapid epithelization of the tube.

Anomalies of the ovaries are uncommon, and ovarian agenesis rarely occurs. Patients in whom they are present are short in stature and are completely lacking in secondary sex characteristics. In cases of ovarian agenesis, a 24-hour urine specimen will be of great value in confirming the diagnosis, frequently obviating the need for laparotomy. The 17-ketosteroids will be slightly lower than normal and the gonadotrophins elevated, indicating ovarian failure. These urinary findings are similar to those of the menopause. One cannot increase the height of these patients with estrogen therapy, but satisfactory breast development, with corresponding changes of the external genitalia and vagina can be accomplished.

MENSTRUAL DISTURBANCES

A delay in the onset of periods frequently causes concern. This may be either a delay in puberty or a true amenorrhea, and the differentiation is important. The average age at puberty varies from 11 to 13, but it is not uncommon for one to find puberty occurring as late as age 16. Delayed puberty seems to represent a genetic difference quite like precocious puberty. One is justified in investigating the cause if the patient has passed her seventeenth birthday without having begun to menstruate. The investigation should include the taking of a complete history and the making of a physical examination to rule out serious organic disease or psychogenic factors. A carefully done bimanual examination will eliminate the obvious congenital defects. If these findings are negative, the physician should obtain a vaginal smear to determine the degree of epithelial cornification. By examining a 24-hour urine specimen for 17-ketosteroids and gonadotrophins, he can rule out adrenal pathology or ovarian agenesis. If these findings are negative, the explanation is merely a delayed puberty, a condition which requires no therapy. It must further be borne in mind that many cases of amenorrhea at this age are of a hypothalamic type that requires no definitive therapy.

Bleeding irregularities are often encountered in the adolescent and are considered due to functional uterine bleeding. Menorrhagia is defined as excessive flow or prolonged bleeding at periods, whereas metrorrhagia is irregular bleeding between periods. This latter type of uterine bleeding is encountered more frequently at puberty or near the menopause than at other times. The absence of ovulation is common in such women and can be mentioned as an explanation for the frequency of their bleeding abnormalities.

There are several important aspects of functional uterine bleeding that are worthy of emphasis. First, functional uterine bleeding has a natural history of spontaneous remissions, so that in the adolescent patient the treatment should be conservative. Second, this is not a fatal disease, and the only serious complication that one has any reason to anticipate is hypochromic anemia. The differential diagnosis is not difficult, since pregnancy and malignancy are rarely encountered in this age group. Usually, one is confronted with a young girl who has had one or two periods and now complains of continuous vaginal bleeding. The painless bleeding at times is scant and seems on the verge of stopping, only to start again with heavy clots. The diagnostic work-up should include complete blood studies, since some patients with a profound anemia may be suffering from a blood dyscrasia. It is surprising how often the uterus is the only site of bleeding, even though a serious coagulation defect or thrombocytopenic purpura is present. Once a blood dyscrasia has been ruled out, one of the simplest ways of stopping uterine bleeding is with intramuscular progesterone. One administers 25 mg. of progesterone parenterally, and on the second day thereafter, he repeats the dose. During treatment there is a decrease in the flow lasting for three or four days, and afterward there is an increased flow that may be as heavy as a period. This is a withdrawal bleeding due to endometrial slough, often called a chemical curettage. In three or four days the bleeding stops, and regular cycles are resumed.

Another method of controlling abnormal bleeding is estrogen therapy. Stilbesterol can be administered in 3-5 mg. doses daily until bleeding stops. Nausea may be a disadvantage of such therapy. After the bleeding has ceased, the medication is continued for 20 days. It is usually advisable to continue with several artificial cycles using 1 mg. of stilbesterol daily for 20 days and then stopping until bleeding occurs. Testosterone propionate, 25 mg. daily for six or seven doses will usually prove effective, but the administration of more than 400 mg. per month is unwise. In most instances one can control the vaginal bleeding by the use of hormonal therapy. In rare instances when patients have not responded to medical management, a dilatation and curettage may prove effective. Castration or hysterectomy is never required to control the bleeding at this age.

Primary dysmenorrhea is often a problem. Usually the menstrual cramps do not begin until age 16 or 17, since it is then that ovulatory cycles

start. When these individuals are examined, no significant pelvic pathology is found, and a freely movable retroverted uterus should be classified as normal. The uterine cramps are the result of uterine ischemia and of excessive myometrial activity occurring in an ovulatory menstrual cycle.

After the physician has completed his history taking and his physical and pelvic examination, he should discuss the problem fully with the patient, emphasizing that her pelvic organs are anatomically normal and that with simple remedies the discomfort can be relieved. It is wise for the physician to point out that after marriage and certainly after delivery, the majority of women are relieved of their dysmenorrhea. Occasionally the mother must be cautioned not to influence her daughter unduly as a consequence of her own marital unhappiness.

There are innumerable preparations on the market to control the pain of dysmenorrhea. All have about the same effectiveness—between 60 and 75 per cent. We have found a combination of aspirin, phenacetin, atropine and ergotin very effective. Narcotics are contraindicated, and surgical procedures such as cervical dilatation or pelvic resection of the presacral nerves are rarely indicated. Hormonal therapy to suppress ovulation will give satisfactory results. Stilbesterol, 1 mg. administered daily for one week starting the last day of the period, 2 mg. daily for the second week, and 3 mg. daily for the third week, will suppress ovulation and a painless period will occur. There are two disadvantages of such therapy: one is that substitutional therapy is effective for only one cycle; the other is that bleeding irregularities may occur.

This presentation would be incomplete without a brief discussion of pelvic pain. The complaint of lower abdominal pain is very common, and the patient is often worried that she may have "female trouble." Such a young girl should have a careful pelvic examination, though as a rule the findings will be normal. It is uncommon for the genital organs to cause pain in this age group. However, mild mid-menstrual discomfort and follicle rupture may occasionally be encountered. Ovarian tumors, pelvic inflammatory disease, endometriosis, pregnancy complications and malignancy are rarely seen. More frequently, the cause of the pain is extragenital, and one can accomplish much by telling the girl that her pelvic organs are normal.

SUMMARY

This presentation has attempted to point out the more common gynecologic complaints that physicians encounter in adolescents. The important points in diagnosis and treatment have been emphasized.

REFERENCES

1. Novak, E.: Constitutional type of female precocious puberty, with report of 9 cases. Am. J. Obst. & Gynec., 47: 20-42, (Jan.) 1944.
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CARDIOVASCULAR SYMPOSIUM

The Department of Internal Medicine of Iowa Methodist Hospital will hold its third Cardiovascular Symposium on Friday and Saturday, June 15 and 16, at the Des Moines Art Center, Grand Avenue at Polk Boulevard.

On Friday evening the principal speaker will be Dr. Jesse Edwards, professor of pathologic anatomy at the Mayo Foundation. His topic, "The Pathology of Pulmonary Hypertension," is extremely important and is one that he has taken the lead in studying.

On Saturday, Dr. Edwards will speak on "Valvular Heart Disease." Other speakers will include Dr. Ancel Keys, who will have just returned from studies in Japan, and Dr. Jacob Grossman, of Montefiore Hospital.

The general topic of the symposium will be "Newer Concepts in Cardiovascular Disease." Announcements, together with copies of the detailed program, will be mailed to all members of the Iowa State Medical Society.

RIGID POULTRY INSPECTION NEEDED

Increased recognition is being given to the need for rigid inspection of poultry offered for sale. In per capita consumption, poultry has doubled since 1940, and the methods of its processing and distribution have changed.

Poultry and eggs are said to be far more important than milk as vehicles of infection. During 1953, according to the reports of the National Office of Vital Statistics, 43.7 per cent of food- or water-borne disease cases involved fowl.*

The Food and Drug Administration regularly examines poultry shipped interstate, and about 25 per cent of the fowls processed in this country are sold by firms *voluntarily* operating under the poultry inspection service of the Department of Agriculture. Nevertheless, it is estimated that 70 per cent are inspected by neither of those agencies, and in consequence there are extensive problems remaining for state and local authorities.

The U.S.P.H.S. published a model ordinance in 1955, and a revision and enlargement of it is now being completed.

* Atkinson, J. W.: Development of poultry ordinance. Pub. Health Rep., 71:471-476, (May) 1956.

State University of Iowa College of Medicine

Clinical Pathologic Conference

March 14, 1956

SUMMARY OF CLINICAL FINDINGS

A 59-YEAR-OLD WHITE housewife was admitted to University Hospitals because of pain, swelling and stiffness of the feet, lower legs and hands for five and one-half months. Nine months prior to her admission, she had consulted her private physician because of the sudden appearance of vaginal bleeding. A cervical biopsy at that time was said to have shown squamous cell carcinoma, poorly differentiated. She then received roentgen therapy over a period of ten weeks—2,100 r external radiation and 1,600 r to both adnexae by a transvaginal route. Afterwards, she had a total of 5,200 mg. hours of radium application. During the final weeks of her radiation therapy, the patient noted burning, redness, stiffness and pain in her finger-tips, with a marked sensitivity to temperature change. These symptoms spread rapidly to her hands, wrists and lower forearms. Thereafter, the lower extremities became involved in a similar manner. A presumptive diagnosis of "arthritis" was made, and Prednisone therapy (20 mg. daily) for a period of 18 days produced slight subjective benefit. There developed progressive weakness, malaise, chilly sensations, stiffness of the hands and feet, and an accompanying fever that rose at times to 101°F. Two weeks prior to admission, the patient first noticed a small amount of bright red blood in the stool. This was intermittent, and never of any great quantity. There had been mild diarrhea during the period of radiation therapy, but subsequently the bowel habits had been regular.

The patient's past history showed that because of menorrhagia 16 years earlier, she had had radiation therapy to the adnexae for purposes of castration, and 22 years before her admission to University Hospitals, she apparently had had a left salpingo-oopherectomy for an ectopic pregnancy. Two children, aged 38 and 36 years, were living and well.

Family history and a review of systems were non-contributory.

The physical examination showed a blood pressure of 126 mm. Hg. systolic and 70 mm. Hg. diastolic, a pulse of 96 beats per minute and a body temperature of 99°F. The patient was alert and intelligent, but appeared chronically ill. Movements of her hands and feet were performed in a stiff and rigid manner and resulted in pain. Examination of her eyes, ears, nose and throat was unrevealing. Her heart was not enlarged, and no murmurs were audible. The liver was palpable 2 cm. below the right costal margin, and was smooth and non-tender. The abdomen was mildly distended and tympanitic. Peristaltic sounds were normal. The skin over the lower abdomen, buttocks, hands, forearms, feet and lower legs was indurated. There was a mottled redness over the feet, ankles and hands, with increased temperature and tenderness to palpation. The pulses were of normal amplitude in all extremities. There was no obvious joint swelling or tenderness. The patient was unable to make a fist with either hand or to flex her feet completely. Slight brownish pigmentation was noted in the areas of skin induration, particularly over the sacrum and lower abdomen. Except for hyperesthesias of the feet and hands, the neurologic examination was normal. Rectal and pelvic examinations were negative, and no evidence of carcinoma was detected.

The urinalysis showed a specific gravity of 1.012, pH 5, albumin negative, sugar negative, and microscopy negative. The red blood cell count was 3.90 million per cu. mm., and the hemoglobin was 11.1 Gm. per 100 ml. The white blood cell count was 7,400 per cu. mm., the differential count showed 75 neutrophils, 7 eosinophils, 10 lymphocytes and 8 monocytes. The sedimentation rate was 50 mm./hr. The total eosinophil count was 39 per cu. mm. A stool guaiac test was 4+ positive. An electrocardiogram and roentgenograms of the barium filled esophagus, the chest and the hands were interpreted as normal. A skin biopsy was obtained from the dorsum of the right wrist.

In the hospital, the patient received 20 mg. of corticotrophin intravenously over an eight hour period daily for four days. There was a striking subjective and objective improvement, with a disappearance of the redness and pain, and an increased mobility. The patient was able to make a fist and to walk without discomfort, and was discharged to continue treatment at home with 40 units of ACTH gel intramuscularly b.i.d., 3.0 Gm. potassium chloride daily and a high protein-low salt diet. A small amount of bright red blood occurring with defecation was noted throughout the patient's stay, and was attributed to post-irradiation proctitis.

The patient did not do well at home, and was readmitted two weeks later. She had noted an increased weakness, and five days before this second admission she was unable to get out of bed without assistance. Four days before admission there was

increased blood in the stool, and on the day before her return, the patient passed three large dark-red stools.

On physical examination, no changes were noted in the stiffness and induration of the extremities. There was an acneform eruption of the face. Basilar rales were heard over both lung fields. The abdomen was distended and tympanitic. Rectal examination revealed a small amount of bright-red blood.

Laboratory tests showed the hemoglobin to be 7 Gm. per 100 ml., and the hematocrit to be 19 per cent. An upper gastrointestinal series was interpreted as normal for the esophagus, stomach and duodenum. Sigmoidoscopy showed normal rectal mucosa, and a small amount of blood was seen coming from above the recto-sigmoid junction. Repeat examinations were unrevealing. Two barium enemas were given on separate occasions and were interpreted as normal.

The therapy given the patient at the hospital consisted of Diamox, potassium chloride, bland low-salt diet, interval feedings of non-absorbable alkali and milk, and oral cortisone. On the third hospital day, the patient complained of lower abdominal aching pain, and passed a large, dark-red, bloody stool containing clots. On the fourth hospital day, 1,000 ml. of whole blood was given over a period of 10 hours. At the termination of the second unit of blood, the patient developed pulmonary edema, with a diastolic gallop rhythm, distention of the neck veins and substernal oppression. She was given oxygen by mask, mercurial diuretics, morphine and 1.5 mg. Digoxin orally. Cortisone was slowly discontinued over the ensuing five days. Retention enemas of hydrocortisone suspension were given every other day for 10 days as therapy for presumptive post-irradiation proctitis. Seventy-two hours after she had received Digoxin, and after a total dose of 1.75 mg., when numerous premature ventricular beats had developed, this medication was discontinued. On two subsequent occasions, the patient was re-digitalized because of pulmonary congestion, each instance with a different digitalis preparation, and each time medication was discontinued because of the appearance of multiple premature ventricular contractions, and on one occasion a second-degree auriculo-ventricular block of the Wenckebach type. Frequent replacement of blood by transfusion was required because of persistent bloody stools, which were sometimes in quantities as large as 300 ml. The patient received a total of 16 units of whole blood during her hospital stay. A persistent diastolic gallop rhythm developed, with basilar rales in both lung fields.

On the forty-second day of her hospitalization, for the purpose of locating the site of the gastrointestinal bleeding and after considerable deliberation, an exploratory celiotomy was performed under epidural anesthesia. A small amount of bloody fluid was found in the peritoneal cavity, and many small areas of localized edema and a thickening of both small and large intestines were discovered. No gross blood was found in any segment of bowel. A right transverse colostomy was done. Postoperatively, the patient developed oliguria, passing 50 to 100 ml. of urine per day. Two days after surgery, the patient passed a large, red, bloody stool per rectum. Nausea and vomiting developed, and in contrast to the normal electrolyte pattern that had been reported prior to surgery, the postoperative blood chemistries revealed a blood urea nitrogen level of 132 mg. per 100 ml., and creatinine 7.8 mg. per 100 ml., sodium 128 mEq. per liter, potassium 6.8 mEq. per liter, chlorides 89.2 mEq. per liter and CO_2 combining power 13.3 mEq. per liter. The patient was unable to take any nourishment by mouth, and on the fifth postoperative day she developed mental confusion and stupor. On the following day, feeble and inefficient respirations appeared. An electrocardiogram at that time revealed complete absence of P waves, with an interventricular conduction disturbance. The patient died in coma on the forty-eighth hospital day. A large quantity of blood passed per rectum immediately after the patient's demise.

CLINICAL DISCUSSION

Dr. Jack M. Martt, Internal Medicine: This patient was an extremely difficult diagnostic problem and consequently a difficult therapeutic one. She was a 59-year-old housewife who had enjoyed good health until some nine months prior to her admission, at which time, because of the sudden appearance of vaginal bleeding some 12 years after the menopause, her physician concluded that she had squamous cell carcinoma of the cervix. Intensive roentgen therapy to the cervix and adnexae improved the cervical lesion, but during the final weeks of radiation therapy she experienced pain, swelling and stiffness in the hands and fingertips. These symptoms were made noticeably worse upon immersion of the hands in cold water or upon exposure to cold drafts. Over a period of six and a half months, this process progressed insidiously until it involved the forearms, the feet and the lower parts of the legs. Her physician diagnosed the condition as "arthritis." Prednisone was administered for approximately three weeks, but produced no more than slight subjective improvement of symptoms. The process, however, progressed in severity until the patient could no longer hold a fountain pen to sign her name and could not walk because of pain and stiffness of her feet. She entered this hospital because of those latter complaints.

Her physical examination was significant primarily as it related to her extremities, the most distal portions of which were red and tender, and

also were so firm and indurated that the examiner was unable to grasp the skin between his fingers to raise a fold. Similar but less advanced changes were noted over the skin of the abdomen, perineum and sacrum. Rectal and pelvic examinations revealed no evidence of carcinoma. The laboratory data were helpful only in that the stool test for blood was strongly positive. A presumptive diagnosis of collagen vascular disease was made, and the patient was given 20 mg. of corticotrophin intravenously daily for four days. There was a rather striking objective and subjective improvement, and at the termination of this therapy the patient could make a fist and could walk with minimal difficulty. She was then discharged to continue such therapy in the form of ACTH gel.

She did poorly at home and was readmitted two weeks later because of marked weakness. Throughout the first of her hospital admissions it had been noted that in occasional stools the patient passed a small amount of bright-red blood. Four days prior to her second admission, the patient passed a rather large quantity of bright-red, clotted blood, and on the day prior to that admission, she was said to have passed three large, red stools.

Upon admission, the physical examination showed change only in that the patient had signs of prolonged ACTH administration. Her face was round, she had an acneform eruption over the face and upper thorax, and there was evidence of generalized edema. Stiffness and induration of the extremities was again noted, and there was no evidence that this process had changed. The abdomen was slightly distended. The patient began passing rather large quantities of bright-red blood per rectum, accompanied by normal-appearing brown stools. Foremost in our minds was the fact that the patient had been on ACTH for some four weeks, and we were quite concerned about the possibility of peptic ulcer, despite the bright-red, rather than dark, blood in the stools.

Dr. Norman A. Gremel, Radiology: Though we examined the entire gastro-intestinal tract of this patient, we found nothing to localize the site of the bleeding. We found the mucosal pattern normal throughout the length of the esophagus, the stomach and the duodenum. There were two areas with which we were particularly concerned, one of them being on the lesser curvature of the stomach. At first we were led to believe that there was a small, superficial ulceration at that point, but the succeeding films failed to substantiate that original impression, and we decided that there was no pathology there. The other area that caused us some concern was in the prepyloric area, but just as in the first instance, subsequent films erased our suspicions and we concluded that it didn't represent an ulcerative process. The duodenal bulb was well filled. Examination of the colon and air-contrast studies failed to show any evidence of polyp or any ulcerative process involving the colon. At the same time, we took films of the patient's hands in an effort to evaluate her problem, but other than showing some bony atrophy, the films were within normal limits. In some of the collagen disorders, as Dr. Martt has mentioned, we see attenuations of the terminal phalanges which weren't to be found at all in this case. There was no evidence of deposition of calcium around the phalangeal tufts. All x-ray examinations were interpreted as normal.

Dr. Martt: We began replacing this patient's blood loss, and on the third hospital day she received 1,000 cc. of compatible whole blood intravenously over a period of some ten hours. At that time she was also receiving cortisone orally, ACTH having been discontinued. When we finished administering the second unit of blood, the patient developed acute dyspnea, substernal oppression, cough, a diastolic gallop rhythm of the heart, distention of neck veins and rales throughout both lung fields. These difficulties, which were diagnosed as the results of acute pulmonary edema, responded adequately to digitalization, mercurial diuretics, morphine and oxygen. Thereafter, the cortisone was slowly discontinued. Shortly after the patient had received digitalis (1.5 mg. Digoxin), signs of cardiac arrhythmia were noted in the form of multiple premature ventricular contractions, and the digitalis was discontinued. With the patient receiving cortisone, it was surmised that digitalis intoxication might have been potentiated by depletion of body potassium. Accordingly, generous quantities of potassium were given orally, but they appeared not to affect the arrhythmia favorably. Throughout the patient's hospital stay, she maintained a diastolic gallop rhythm at the apex of the heart and persistent rales throughout both lung fields that were treated on three different occasions and with three different digitalis preparations. Each time, we noted electrocardiographic signs of digitalis intoxication.

Even more troublesome, however, were the persistence and continuance of gastrointestinal hemorrhage. The patient passed bright-red blood per rectum in amounts varying from 50 to 300 cc. daily. In our effort to maintain her blood volume and throughout her stay, we gave her 16 units of whole blood. The problem of gastrointestinal bleeding necessitated our asking Dr. Thornton to sigmoidoscope this patient, and he did so on two occasions. Perhaps he will tell us now what entered his mind as he saw this woman and what the approach to the detection of the bleeding site should or should not have been.

Dr. George H. M. Thornton, Internal Medicine: Although very severe rectal hemorrhage was one of the main contributory causes of this patient's death, we were rather unsuccessful, while she was still alive, in determining the cause of that hemorrhage. Sigmoidoscopy was extremely difficult. We

had to examine the patient in the left lateral position, and she was almost incapable of flexing her hips. However, after examining her on two occasions we felt fairly sure that the rectal mucosa was normal as far as the recto-sigmoid junction. We were never able to get the sigmoidoscope into the sigmoid colon.

I think the first thing which we ought to consider, and one which we considered at the time, was whether or not this hemorrhage could be due to scleroderma, the pathology first diagnosed. Although alimentary symptoms due to scleroderma are most common in the esophagus, it has been well established that the disease does frequently affect the alimentary tract as a whole. A number of patients, it has been reported, have had recurrent vomiting secondary to intestinal obstruction or a syndrome similar to paralytic ileus, probably because scleroderma affected the alimentary canal. In those cases, there has been a generally irregular dilatation and narrowing of the small and large bowel.

When laparotomy was eventually carried out in this patient, a patchy lesion of the small intestine was seen which apparently would be compatible with scleroderma. Just how scleroderma could produce profuse hemorrhage from the colon, I do not know, but I am sure that there usually is an extensive vascular involvement in this disease, and I think perhaps it is not impossible either that there was rupture of a number of small arterioles in the lower colon or that she developed ischemic and profusely bleeding ulcers of the colon.

Second, we considered whether or not the hemorrhage could be due to any of the therapeutic agents which the patient had received. She had had radiation therapy for carcinoma of the cervix, and I believe the interval between that therapy and the onset of bleeding would be quite compatible with the development of radiation proctitis. This is one other possibility which we considered seriously. She also had had relatively large doses of ACTH, a drug which has been known to cause bleeding and perforation, and perhaps to cause acute ulceration in the stomach and duodenum in patients with ulcerative colitis, but never, so far as I know, in a patient who had had a normal colon before administration of ACTH.

Next, we considered whether there could be some unrelated condition causing this profuse rectal hemorrhage—unrelated, that is, to the scleroderma from which she was suffering. First of all, of course, in a patient of her age one would think of cancer. Yet cancer of the left half of the colon, at least, is usually a scirrhous type of lesion which bleeds, but in most cases not profusely. The vegetative type of carcinoma which occurs on the right half of the colon bleeds more freely, but still a profuse hemorrhage of this type is unusual from carcinoma even of the right half of the colon.

I think probably one ought to mention hemorrhoids in this connection. Profuse bleeding can occur from hemorrhoids, but if bleeding hemorrhoids are found in a middle-aged patient, one should never accept them as being the only pathologic condition present, for they are frequently associated with a carcinoma farther up the bowel. A complete investigation should be undertaken even if bleeding hemorrhoids are found. There were none in this patient.

An adenomatous polyp is a common cause of rectal bleeding. Most of these are accessible to the sigmoidoscope, but the investigation should, as it did in this case, also include air-contrast studies. I think that between sigmoidoscopy and air-contrast studies we covered the entire colon and rectum in this patient, and no polyps were seen.

There are a number of infections which should be considered. I do not believe typhoid fever was likely in this patient, but it is a possibility which one ought to bear in mind. Bleeding can result from amebiasis and, indeed, can be the major manifestation of that disease. Since specimens were examined in this patient and no amoebae were found, I don't believe that the bleeding was due to amebiasis in this case.

You have to consider general diseases which might have caused profuse rectal hemorrhage. Uremia is a possibility that should be excluded and, of course, the bleeding diseases. Thrombocytopenic purpura and leukemia could be possible causes, but were not present in this patient.

Of course there are many causes higher up in the alimentary canal which might have accounted for the profuse rectal hemorrhage. The mere fact that the blood is red does not mean it comes from low down in the alimentary canal. In this patient, I think those possibilities were pretty well excluded by x-ray and laparotomy, however.

Because of all these negative findings, it is my personal feeling that perhaps scleroderma, though a long shot, is the most likely explanation of the patient's rectal bleeding. A second possibility, though a less likely one, is irradiation proctitis at a point higher up than was accessible at sigmoidoscopy.

Dr. Martt: As Dr. Thornton has mentioned, on the patient's second admission the presumptive diagnosis of her illness was post-irradiation proctitis, with secondary hemorrhage. Dr. Goddard, of the Department of Obstetrics and Gynecology, who originally had this lady for a patient, concurred in this presumptive diagnosis. Dr. Goddard, would you mind telling us about the recommendation which you made suggesting hydrocortisone retention enemas for her bleeding?

Dr. William B. Goddard, Obstetrics and Gynecology: This patient had competent and adequate radiation therapy for her carcinoma of the cervix. She had an adequate radium dosage and 33 x-ray

treatments. She had a mild diarrhea and a weight loss of five pounds as a result of her therapy. She had come to her physician early, she had been referred to the radiologist early, she had an original staging of about League I, and she was a very satisfactory patient belonging to a group who normally can look forward to a 60 or 70 per cent five-year survival, and afterwards to an extended survival period.

I should like to enlarge a little on the discussion of irradiation proctitis. After radiation therapy for carcinoma of the cervix, there are in general two clinical pictures, both of which are called irradiation proctitis. These two pictures are not mutually exclusive. Whenever we generalize about patients we run into danger, but I shall nevertheless generalize.

The first clinical picture known as irradiation proctitis is one due to the early effects of the radiation. It may come on as early as the middle of therapy and usually disappears within six weeks. It is self-limited, diarrhea is its most prominent symptom and often there is some rectal bleeding. Severe bleeding is quite rare, and one seldom sees this picture past about three months post-therapy. On examination, one sees only an inflamed mucosa with punctate areas of bleeding.

The second type is a late fibrotic change—you'll notice that I don't use the term *radiation fibrosis.* It is usually seen in advanced carcinoma, and it is usually in patients who have had extensive tumor, with fibrotic replacement of the tumor after irradiation. In early cases it is sometimes due to a loss of blood supply, but normally it is due to fibrous tissue replacement in structures infiltrated by tumor. In more than one instance, a late irradiation proctitis has been mistaken for a new tumor, and an abdominoperineal resection has been performed. In such instances, the patient's pelvis feels as if it had been filled with cement. Proctitis usually occurs within the area between 8 cm. and 15 cm. above the anus—the area receiving the maximum radiation dosage. This was not the picture in the patient whom we are discussing today.

Our only specific treatment for early irradiation proctitis is local hydrocortisone. Its mechanism is not known. Since the inflamed area is bowel, the hydrocortisone is given by enema. We performed some of our multiple sigmoidoscopies to be sure that we were getting hydrocortisone into the area of the presumed radiation proctitis. Normally, great improvement comes within three or four days, but this patient was not helped.

This patient's difficulty arose a little too late for us to think it an early irradiation proctitis, and a little too early for us to think it a late proctitis. Though she originally had had carcinoma, the lesion had not been so extensive as to make us expect serious trouble from late bowel changes. Hemorrhage sufficiently severe to depress the hemoglobin is rarely seen in either variety of proctitis. I should agree with Dr. Thornton that this lady probably had bleeding from areas of the bowel infiltrated by the collagen disease. This infiltration occurred in bowel that already had mild irradiation changes, and hence had a greater chance to ulcerate when attacked by a second disease process.

Dr. Martt: Dr. Buckwalter, of the Department of Surgery, discovered the indurated areas of the bowel to which several references have been made. This patient was a very poor operative risk, and Dr. Cullen, of the Department of Anesthesiology, and several members of the Department of Surgery were agreed that she might well die during the procedure. Because of the persistent hemorrhage and because of our desire to control it by whatever means, we subjected her to an exploratory celiotomy under epidural anesthesia on her forty-second hospital day.

Dr. Joseph A. Buckwalter, Surgery: Of the various problems which confront the physician, there are none that are more disconcerting than the one presented by this patient—namely, persistent gastrointestinal bleeding. On at least two occasions arrangements had been made for her discharge from the hospital. On one of them, a plane had been chartered, but on the night preceding what was to have been her day of discharge, she started bleeding. The protocol says that operation was decided upon "after considerable deliberation." That is a distinct understatement, one which might well have been made by Dr. Thornton or one of his fellow countrymen. We were all convinced, I believe, that of the three most probable causes—post-irradiation change, ulceration secondary to cortisone therapy and bleeding incident to collagen vascular disease—the last was most likely. However, after going through this protracted period of mental anguish, greatest for Dr. Martt, we decided on the forty-second day that operation was indicated simply because we had to find the true reason for the hemorrhage and because we hoped to find an opportunity for controlling the bleeding by excising a local cause.

It is quite apparent that this woman was a poor operative risk, but it might be a good idea for me to spell out the reason anyway. In the first place, her cardiovascular system, as you have been told, was very shaky; she had been given blood on several occasions, only to go into pulmonary edema even though the blood had been run very slowly. She also had a disconcerting arrhythmia which Dr. Martt had found resistant to therapy. Second, we could anticipate very poor wound healing in view of the findings—i.e., extreme depletion, long chronic illness and scleroderma. Third, there was the minor question of cortisone therapy. Finally, perhaps the most important reason for our reluctance to operate upon her was our inability to localize the

bleeding point in advance. Operating upon a patient in whom one has failed to localize a definite focal lesion responsible for the bleeding is frustrating in any instance. In a patient such as this, the odds were even less attractive. But to the surprise of Dr. Cullen and everybody else, she tolerated the operation rather well. When we opened the peritoneal cavity, we found about 200 to 300 cc. of free, clear fluid. Extensive edema involved the parietal and visceral peritoneum. These changes were so striking in the area of the distal stomach and proximal duodenum as at first to give us the feeling that perhaps we were dealing with a duodenal ulcer. She had similar changes along the lesser curvature of the stomach. In order to satisfy ourselves on this point, it was necessary for us to open the stomach and inspect the interior. We did so, but found no ulcer. The colon contained a large amount of blood. No findings were noted suggesting carcinoma, diverticulitis or any other lesion which might be incriminated as a cause for the bleeding. Several biopsies were taken, and the stomach and abdominal wounds were closed.

Dr. Martt: As can be seen in the protocol, the postoperative course was not a smooth one. Oliguria developed, as did a marked anorexia, mental confusion, respiratory distress and cardiac arrhythmias. Electrolyte studies done prior to death revealed azotemia, with a BUN of 132 mg. per cent and a serum potassium of 6.8 mEq. per liter. These findings contrasted markedly with the normal electrolyte pattern that had been reported preoperatively. The patient's electrocardiograms throughout her stay were diverse, varying from a bigeminal pattern and second-degree A-V block, to a terminal pattern of interventricular block suggestive of hyperkalemia.

Thus you have heard the attitudes of representatives of various departments in regard to this patient's disease. It seems agreed that she was suffering primarily from a collagen vascular disease, most likely scleroderma, and that the gastrointestinal bleeding was in all likelihood incidental to that disease. I might add that her cardiac arrhythmias, her marked intolerance to digitalis, her persistent gallop rhythm and basilar rales, we felt were likewise due to a collagen vascular disease secondary to an involvement of the myocardium.

Dr. Emory D. Warner, Pathology: In this case, the findings at the time of autopsy were fairly extensive and partly satisfying from the standpoint of explaining the clinical course. There was generalized scleroderma, and by the time of the patient's death the involvement of the skin had become pronounced. The scleroderma was of the generalized type, with involvement of both small and large bowel, fibrosis of the lungs interspersed with some emphysema, involvement of the esophagus to a mild degree and involvement of the Fallopian tubes. In addition, there was rather widespread vascular disease. Some authorities say that vascular changes are present fairly often in scleroderma, and others say that they are not. You may take your choice. There was fibrinoid necrosis, with acute cellulitis. The changes were not limited to the arterioles, but also involved some of the larger vessels of the size ordinarily involved by polyarteritis. In addition to the fibrinoid change and necrotizing vasculitis, we found the type of change more usually described as characteristic of scleroderma—namely, an edematous thickening of the intima of medium-sized arteries. These changes are very similar to those that malignant hypertension produces in vessels of this size. In this patient this type of change was very conspicuous in the kidney.

There was a diffuse interstitial myocarditis, characterized by interstitial edema, without much evidence of edema of collagen, and with inflammatory cell infiltrate, predominantly of the large mononuclear type. There was no appreciable scarring. In keeping with the postoperative oliguria and rapidly developing uremia, there was evidence of tubular damage of the type seen in "lower nephron nephrosis" as a terminal renal complication.

No satisfactory explanation for the extensive intestinal hemorrhage was found. There was no gross ulceration at any point throughout the gastrointestinal tract. There was mild atrophy, with chronic inflammation of the gastric mucosa. The sclerodermatous involvement of bowel with extensive sclerosis of submucosa in places was unassociated with ulceration. Mild mucosal edema was present, with a few small, punctate hemorrhages in the mucosa, but these did not appear adequate to account for severe hemorrhage. This is not the first time that we have encountered patients who have bled massively from gastric or bowel mucosa and in whom no very satisfactory explanation for the bleeding could be found. We are left with the rather unsatisfying presumption of mucosal oozing.

There were some other findings that I think are significant. There was generalized peritonitis from which hemolytic Staphylococcus aureus was cultured at the time of autopsy. This same organism also was cultured from the heart blood. Scattered acute focal necroses in the liver of the type that we see associated with sepsis were present, but these were not extensive. There was very moderate fatty metamorphosis of the liver. The fears relative to wound healing expressed by Dr. Buckwalter were, I think, quite justified. Though the gastrostomy wound was well closed and though no gross leakage showed, for all practical purposes there was no sign of healing. Inflammatory reaction to the peritoneal infection had been relatively mild, and considering the organism present, I suspect that there might have been a more violent reaction had the patient been a little more responsive.

Together with the pulmonary fibrosis, the myo-

carditis accounts reasonably well for the cardiac difficulty encountered in this patient. The case fits rather well with what has been described as the characteristics of generalized scleroderma, but there were in addition some findings suggestive of lupus. Thus, the case corresponds with what some authorities have described as a sort of intermediate form of collagen vascular disease. One recent article in the JOURNAL OF CLINICAL PATHOLOGY* introduces the term *viscero-cutaneous collagenosis* to get around the difficulty of deciding whether cases of this type are disseminated lupus with sclerodermous manifestations, or generalized scleroderma with disseminated lupus manifestations.

Dr. Ruben Nomland, Dermatology: Whenever we have a disease of unknown cause ending fatally with fever and changes of skin, it is always called a collagen vascular disease. I sometimes think there is no relationship between some of the diseases which are classified as collagen diseases.

I wish to say a few words about scleroderma. There are two fundamental types of generalized scleroderma, and they are probably two different diseases, even thought the cutaneous pathology and some of the other changes are quite similar. There is a type of scleroderma which is very benign, which occurs in women and which starts out with a Reynaud-like syndrome, followed by sclerosis of the skin of the extremities, face, upper chest and elsewhere. It is usually compatible with a normal life expectancy of 15, 20 or more years. In this type, we expect disorders of the esophagus, with sclerosis and a dilation. Involvement of other viscera probably occurs. I'm not so sure about the nature of the involvement of other portions of the viscera and of the myocardium, and I suspect that other people are no better informed, for I'm sure there are very few such cases that have come to postmorten.

The second type of generalized scleroderma is the diffuse, generalized sort that may start in a great many fashions. It may start with edema, with arthritis-like syndromes, with swelling or with pigmentation. It may start on the hands and feet, or it may start on the body and not involve the hands or feet. This type of scleroderma carries with it a much more serious prognosis, and probably five years is as long as one can expect such patients to live. They die of the things that this woman died of—myocarditis, involvement of the gastrointestinal tract and, I'm sure, other things that have not been described. We had a secretary here a number of years ago who, from the time of her initial symptoms of scleroderma that occurred with swelling of her hands and feet, to her death about three years later, had continuous progressive thickening of her skin, and she died a myocardial death. Thus, diffuse, generalized scleroderma of this type is a serious disease. Complete pathologic reports on scleroderma are rather few, and I doubt if enough has been done to justify one's being dogmatic, but I think one can safely say that the second type of scleroderma is a diffuse disease that involves the supporting and vascular tissues probably of a great many organ systems, as has been shown in this case. I do not believe that we can stretch the clinical conception of collagen disease to show a relationship between scleroderma and diseases such as subacute disseminated lupus erythematosus, dermatomyositis and other diseases. I think they are entirely different disease syndromes, and though they may show certain pathologic similarities, they should not be considered a related group of diseases.

Dr. Elmer L. DeGowin, Internal Medicine: I don't want to let this opportunity pass without commenting upon one detail of therapy in this case. I hope, however, that my remarks will be taken in the right spirit.

The treatment of circulatory overload after transfusion in this patient seems to me to have been so inadequate as to be dangerous. The occurrence of circulatory overload from blood transfusions is a medical emergency, and we have had more than one death within a half hour after the condition developed. Obviously that is too soon to permit digitalization of the patient or to produce any results from diuretics.

Since we have learned something about the treatment of this condition, I think it is possible for us to save most patients with another approach entirely. One must realize that the patient has an excess of blood in his circulation. The blood volume may well have exceeded the critical level. Therefore, the first step is diagnostic as well as therapeutic, and consists of putting tourniquets on all four extremities. Within three to four minutes, the rales in the chest clear up and the patient feels much better. This proves the diagnosis and also demonstrates that pooling 15 or 20 per cent of the blood volume in the extremities is the key to subsequent therapy.

The next step is to put a large needle in the vein and withdraw some blood. The appearance of the patient can be very deceptive. We have seen patients tided over the first hour or so with minor treatment, but when this second step, the phlebotomy, has not been done, edema of the lungs has suddenly recurred as long as eight hours afterward, and the patient has died in an attack. It seems to me that this incident also shows that the patient was very hardy. Many patients do not respond to the rather conservative therapy as nicely as this one did. I would suggest that when you encounter conditions like this, you should get tourniquets around all four extremities right away, and if the symptoms are relieved, make preparations to do a phlebotomy and remove at least 500 ml. of

*Pagel, W., and Treip, C. S.: Viscero-cutaneous collagenosis; a study of internal forms of dermatomyositis, scleroderma and disseminated lupus erythematosus. J. Clin. Path., 8:1-18, (Jan.) 1955.

blood. You may feel rather reluctant to withdraw blood because it is hard to explain to the patient's family that one minute he needed a transfusion and that soon afterward a phlebotomy was required, but you should do it none the less.

SUMMARY OF NECROPSY FINDINGS

Dr. Warner: At autopsy there was generalized scleroderma, with involvement of skin, lung, esophagus, intestine, Fallopian tubes and ureters. An edematous intimal thickening of the type thought to be rather characteristic of scleroderma was present in the smaller arteries in the kidneys. In addition to this change, there were many foci of fibrinoid necrosis in small arteries. Both types of vascular change were especially severe in the kidneys. This latter type of change, a rare one in scleroderma, suggests disseminated lupus. There were no well-developed "wire loop" changes in the renal glomeruli, nor were L.E. cells found. Other significant findings included generalized peritonitis, interstitial myocarditis and lower nephron nephrosis.

The myocarditis, together with the pulmonary fibrosis, could explain the poor cardiac function. The inflammatory cell reaction to the peritonitis was poorly developed, and there was no evidence of healing in the margins of the gastrostomy wound. No satisfactory source for the intestinal hemorrhage was found. There were no areas of frank ulceration, and only one tiny focus of superficial erosion was present in the colon. The mucosa was intact over the patchy areas of fibrosis and thickening of the submucosa associated with the scleroderma. Evidence of significant radiation damage of bowel was not found. The uterine cervix showed post-irradiation changes, with no residual neoplasm.

Hemolytic Staphylococcus aureus was cultured from the blood and peritoneal fluid, and nonhemolytic Streptococcus was obtained from the peritoneal fluid.

NECROPSY DIAGNOSES

Scleroderma, generalized, involving the skin of the forearms, abdomen, legs, lungs, esophagus, small intestine, colon, pancreas, kidney and Fallopian tubes.

Necrotizing arteritis, generalized, with severe involvement of the kidneys.

Lower nephron nephrosis.

Myocarditis, interstitial.

Bacteremia, Staphylococcus aureus.

Peritonitis, acute.

Uremia.

Focal necrosis and fatty metamorphosis, liver.

Collapse of both lower lobes and patchy areas of other lobes of lung.

Pulmonary hemorrhage.

Hemorrhage into the distal segment of colon, massive.

Carcinoma of the cervix, irradiated (171 r.).

Status post transverse colostomy and gastrostomy.

Ulcer of bladder, acute, posterior wall.

Pancreatitis, acute, focal.

Atrophic gastritis, chronic.

Pulmonary emphysema, moderate.

Hyperplasia of all marrow elements.

Hemosiderosis of liver and spleen, mild.

Chronic cholecystitis with cholesterolosis.

Obliterated appendix.

Medullary fibroma, left kidney.

Hydrothorax, bilateral, small.

ESTATE PLANNING FOR PHYSICIANS

It has been said that it is just as important for every doctor to have a well-conceived, current estate plan for the benefit of his family as it is for every family to have the services of a doctor.

The value of a doctor's taxable estate, in most cases, exceeds $60,000, the amount of the federal estate tax exemption. Thus, he should make sure that his estate qualifies for the "marital deduction," a provision which entitles his surviving spouse to one-half of his estate free of federal estate taxes. It is also very important that the "second set" of taxes be saved for the benefit of his children.

If the doctor is in a partnership, it is probably advisable that he have a partnership agreement, and in many cases a buy-and-sell arrangement, possibly funded by life insurance.

If he is in a high income tax bracket and has any sizable income-producing assets, he may find it advisable to create short-term trusts, the income from which, during the ten-year period, could be taxed either to the trustee or to his children. He may find it advisable to make gifts and use part or all of his gift-tax exemptions, state and federal. Such gifts would remove part of his estate from the top death-tax brackets.

Because estate planning is the best use and arrangement of a person's property to carry out his objectives, every doctor needs estate planning to a greater or lesser degree. Where does the doctor get estate-planning help? The key man is the attorney. All legal instruments, such as a will or a trust agreement, and the solution of all legal questions are matters for the doctor's own attorney.

Any trust company will be happy to share with the doctor the experience it has gained in the practical administration of many estates and trusts.

HARRY L. HOLTZ
First Trust Company of St. Paul
(in MINNESOTA MEDICINE, 39:309-310, (May) 1956)

Coming Meetings

In State

June 8-9	**Medical Reunion, SUI College of Medicine.** Iowa City
June 15-16	**Cardiovascular Clinic of the Department of Internal Medicine of Iowa Methodist Hospital.** Des Moines Art Center
June 18-22	**"Modern Concepts of Internal Medicine,"** Sponsored by American College of Physicians. SUI College of Medicine, Iowa City

Out of State

June 1-30	**Gynecology.** Free Hospital for Women, Boston
June 2	**Colorado Medical Alumni Clinics.** U. of Colo. Medical Center, Denver
June 4-6	**Practical Pediatric Hematology.** Children's Hospital of Philadelphia and the U. of Penna., Philadelphia
June 4-6	**National Cancer Conference,** sponsored by American Cancer Society and National Cancer Institute. Sheraton Cadillac Hotel, Detroit
June 4-6	**Dermatology for GP's.** U. of Minnesota Center for Continuation Study, Minneapolis
June 4-8	**Symposium on T-B & Other Pulmonary Diseases of Childhood.** New York University, NYC
June 4-8	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
June 4-8	**Thoracic Surgery.** Cook County Graduate School of Medicine, Chicago
June 4-13	**Medical Care of Atomic Casualties.** Walter Reed Army Medical Center, Washington, D. C.
June 4-15	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
June 4-15	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
June 4-29	**Course 2—General Surgery.** Cook County Graduate School of Medicine, Chicago
June 6-7	**Carbohydrate and Fat Metabolism.** University of Pennsylvania, Philadelphia
June 7-8	**Blood Group Incompatabilities & Erythroblastosis Fetalis.** Children's Hospital of Philadelphia and U. of Penna., Philadelphia
June 7-10	**Twenty-second Annual Meeting, American College of Chest Physicians.** Chicago
June 11-13	**Orthopedics in General Practice.** New York University, NYC
June 11-15	**Annual Meeting, American Medical Association.** Chicago
June 11-15	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
June 11-15	**Hematology.** Cook County Graduate School of Medicine, Chicago
June 11-15	**Esophageal Surgery.** Cook County Graduate School of Medicine, Chicago
June 11-20	**Pediatrics.** Massachusetts General Hospital, Boston
June 11-22	**Course 2—Gynecology.** Cook County Graduate School of Medicine, Chicago
June 11-22	**Symposium on Modern Therapeutics in Internal Medicine.** New York University, NYC
June 11-23	**Histochemistry.** U. of Kansas Medical Center, Kansas City, Kansas
June 13-19	**Basic Sciences Related to Anesthesiology.** U. of Pittsburgh School of Medicine
June 14-15	**Colorado Inter-Resident Clinics.** U. of Colo. Med. Center, Denver
June 18 (10 hrs.)	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
June 18-21	**Medical Postgraduate Course.** Duke University School of Medicine, Durham, North Carolina
June 18-22	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
June 18-22	**Breast & Thyroid Surgery.** Cook County Graduate School of Medicine, Chicago
June 18-22	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
June 18-22	**Neurologic Medicine for Physicians.** Boston City Hospital
June 18-22	**Recent Advances in General Surgery and Surgical Anatomy.** Stanford Univ. School of Medicine, 2398 Sacramento St., San Francisco 15
June 18-22	**Liver & Biliary Tract Disease.** Cook County Graduate School of Medicine, Chicago
June 18-29	**Fractures & Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
June 18-29	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
June 18-29	**Neurological Diseases: Cerebral Palsy.** Cook County Graduate School of Medicine, Chicago
June 18-30	**Surgical Anatomy & Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
June 20-22	**Pediatric Metabolism & Endocrinology.** Massachusetts General Hospital, Boston
June 21-23	**Postgraduate Course in Cardiovascular Disease.** Bowman-Gray School of Medicine, Winston-Salem, North Carolina
June 25 (10 hrs.)	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
June 25-29	**Twenty-fourth Annual Graduate Short Course.** Hotel George Washington, Jacksonville, Florida
July 2-27	**Clinical Heart Disease.** Peter Brent Brigham Hospital, Boston
July 2-27	**Yale Summer School of Alcohol Studies.** New Haven
July 2-27	**Gynecology.** Free Hospital for Women, Boston
July 7-13	**Symposium on T-B & Other Chronic Pulmonary Diseases.** Saranac Lake, New York
July 9-20	**Pre-assembly Postgraduate Course.** Cook County Graduate School of Medicine, Chicago
July 9-20	**Electrocardiography & Heart Disease.** Cook County Graduate School of Medicine, Chicago
July 9-20	**Review Course in General Medicine.** New York University, NYC
July 9-20	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 12-14	**Dermatology for GP's.** Univ. of Colo. Med. Center, Denver
July 16-18	**Postgraduate Medical Assembly of South Texas.** Shamrock Hotel, Houston
July 16-20	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
July 16-27	**Rhinology and Otoplasty.** Mt. Sinai Hospital, NYC
July 18-Aug. 1	**Hematologic Diagnosis.** Michael Reese Hospital, Chicago
July 23-26	**Ophthalmology.** Univ. of Colo. Medical Center, Denver
July 23-Aug. 3	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 23-Aug. 3	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
July 27-29	**Emergency Surgery—Acute Injuries.** University of Tennessee, Memphis

HEALTH EDUCATION WORKSHOP

The Eighth Annual Health Education Workshop will be held in the Meeting Room of the Morehouse Residence, Drake University, 1202 Twenty-eighth Street, Des Moines, on June 21 and 22. Everyone interested in Better Health for Iowa is invited to participate.

The theme is to be "How to Get Health Groups Underway," and small groups will consided problems of community organization for disaster mobilization, nutrition, and home accident prevention.

On the evening of June 21, Herbert C. Modlin, M.D., senior psychiatrist at the Menninger Foundation, will address a dinner meeting on "The Importance of Contributions by Individuals to Community Health Improvement." Dinner tickets are $1.55 each.

Editorials

THE 1956 ANNUAL MEETING

In many respects, the April 22-25, 1956, Annual Meeting of the Iowa State Medical Society was the largest in the organization's history. The increase in attendance can be seen from the following tabulation:

	1954	1955	1956
Members	858	906	975
Guests	95	545*	478**
Woman's Auxiliary	209	250	221
Future Nurse Clubs of Iowa		85	137
Technical Exhibitors	145	185	225
Total	1,307	1,971	2,036

* Including 82 physicians
** Including 97 physicians

The technical exhibits, 76 of them, were more numerous than those at any previous meeting. And the scientific exhibits, though they didn't exceed the previous year's in number, attracted increased interest.

Two awards were given for scientific exhibits, both of them for displays having to do with heart surgery. One of them went to Dr. Louis T. Palumbo, of the Des Moines VA Hospital, and the other to a group of physicians who operate the Blank Memorial Hospital Heart Center, in Des Moines. They are Drs. W. H. Myerly, Harold Margulies, John Gustafson and James T. McMillan.

The lectures delivered at the Meeting attracted large audiences, and from the comments made by some of the doctors who attended them, it seems that everyone found them valuable. Industrial health problems were especially well represented among the topics that were taken up, and the general interest that the speakers aroused in them is indicated by the fact that members of the Society asked more questions than the speakers had time to answer. The new section meeting on mental health also attracted and held a particularly large number of physicians.

Meetings of the House of Delegates were conducted by the speaker, Dr. Herman J. Smith, of Des Moines, with the efficiency and dispatch for which he has become noted. But the chairman and members of the reference committees are no less entitled to credit for the fact that the sessions, for the first time in several years, were kept within the time limits set for them in the program. The resolutions that had been presented were numerous, but despite the fact that the reference committees failed to recommend the adoption of some of them and proposed important changes in others, all interested delegates apparently had said what they wanted to say and were reconciled to the decisions of the reference committees, for there was no debate and there were no amendments to committee reports proposed on the floor of the House.

MERIT AWARD RECIPIENTS



Dr. Robert L. Parker



Dr. George Braunlich

Dr. Robert L. Parker, of Des Moines, and Dr. George Braunlich, of Davenport, received awards of merit from the Society at the annual banquet on April 24. Dr. Parker's citation pointed out that he had served as an officer for a longer period than any other physician. He was treasurer of the Society from 1927 to 1930, secretary from 1930 to 1945, and president in 1947. Dr. Braunlich's award was presented him *in absentia,* for illness prevented his attending the meeting. His citation commended him for the able representation he gave the Iowa Medical Society as one of its AMA delegates from 1946 to 1955.

The JOURNAL, as is its custom and indeed its *raison d'etre,* will publish the papers presented at the Meeting so that those members who had to stay at home will have an opportunity to share in the excellent programs that were presented. As usual, the transactions of the House of Delegates will appear, in as great detail as is feasible, in the July issue, and the scientific papers will appear, four or five at a time, throughout the coming 12 months.

The Society's officers and staff have already begun planning next year's Annual Meeting, which is likewise to be held in the Veterans Memorial Auditorium, in Des Moines. As a new feature, one or more sessions dealing with the economic problems of medical practice are being contemplated. The dates to mark on your calendar are April 28-May 1, 1957.

DAWN BREAKS FOR GASTROENTEROLOGY

The physicians who attended the 1956 annual meeting of the American Gastroenterological Association were strongly impressed with the fact that two important trends are taking place. For many years, progress in gastroenterology has been disappointingly slow. Discussions at meetings of specialists have been limited to time-honored topics such as medical, as opposed to surgical, management of bleeding ulcer. Papers have been devoted to statistical analyses of various subjects.

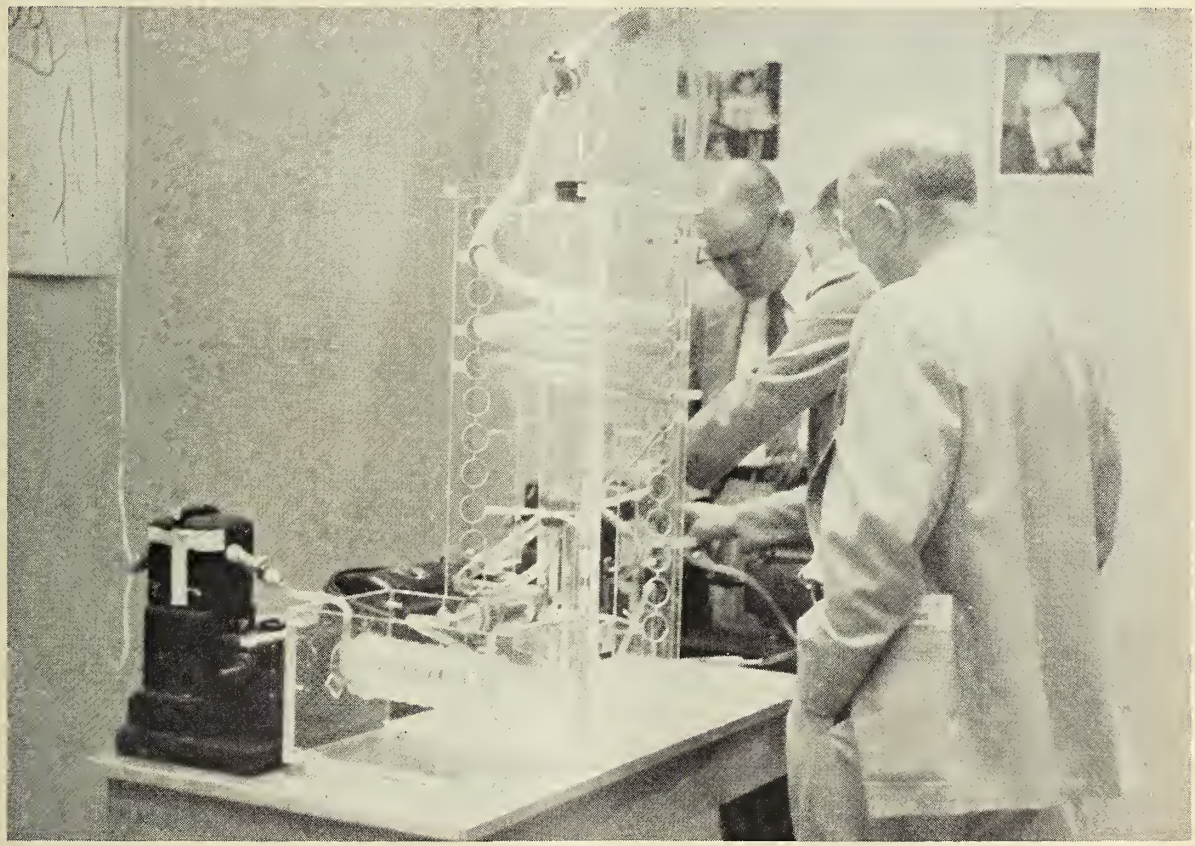
The doctors' hearts were gladdened, therefore, when they heard speaker after speaker make such statements as "Gastroenterology is a science of diseases of unknown etiology" and "We must begin to study the *causes* of the diseases with which we are dealing." Those declarations, long overdue, admitted that gastroenterology has been in the dark ages. And now that the past has been relegated to the history books, practitioners of the specialty will no longer be satisfied with a constipating diet of dull statistics. They will expect, and they themselves will strive to contribute, genuine additions to knowledge.

Like a lantern lighting up the darkness, papers on the use of radioisotopes in the fundamental problem of intestinal absorption took up one quarter of the meeting. Their authors seemed to say, "This is the *beginning* of an era of study of cause and effect in gastroenterology. Let's go on from here!"

The bearers of the lantern were energetic *young* doctors. No longer was the senior author named *first* in the author-list, and the young man who had done the real research work *last*. And almost without exception the speakers were young men.

Will these young doctors continue to make additions to the store of gastrointestinal knowledge, so that some day we may be certain of the biophysiologic causes of the diseases we are called upon to treat? Let us hope so. At least these youngsters are now being given the encouragement they need and deserve.

PRIZE-WINNING SCIENTIFIC EXHIBIT



This device, used at Raymond Blank Memorial Hospital Heart Center to reroute blood of a patient undergoing heart surgery, won an award and proved a popular exhibit at the 1956 Annual Meeting of the Iowa State Medical Society. Dr. W. H. Myerly, of Des Moines, who built it in his home workshop, concedes that it "looks like something out of a Rube Goldberg cartoon." Among other things, it includes 59 feet of quarter-inch, 9 feet of three-quarter-inch and 3 feet of 2-inch plastic tubing, two electric motors and three pumps. He built two other models perfecting it.

DR. REDMOND CHOSEN GP OF THE YEAR



Dr. Thomas M. Redmond, 77, who has maintained a general medical practice in the same office in Monticello for 51 years, was named "General Practitioner of the Year" by the Iowa State Medical Society on Wednesday, April 25.

Previous recipients of the award are the late Dr. Ambrose E. Wanamaker, of Hamburg; Dr. Clyde A. Henry, of Farson; Dr. Pierre Sartor, of Titonka; Dr. John H. Chittum, of Wapello; and Dr. Elbert J. Watson, of Diagonal.

Dr. Redmond's parents emigrated from Ireland in 1851, and he was born in Dysart. Following his graduation from school there, he worked for three years in a drug store before deciding to seek a medical education. He graduated from the Northwestern University Medical School, practiced briefly at Reinbeck, and moved to Monticello in November, 1904.

On his arrival, there were six other physicians active in the town and in the surrounding rural community, and like his fellows, he spent much of his time driving to and from the farm homes of his patients behind a team of horses.

A favorite subject of his is the changes which have come about in the practice of medicine since he entered it. But keeping up with developments in medicine has never troubled him, for he thoroughly enjoys reading medical publications and attending clinics and conferences.

He has been Monticello's health officer for 50 years, he has been the Milwaukee Railway's surgeon there since 1916, for 21 years he was the ISMS deputy councilor for Jones County, he is a director of the Monticello State Bank, he is a past president of the Rotary Club and of the Monticello Country Club, and he has served for nine years on the school board and 10 years on the Jones County Selective Service Board. He is a member of Sacred Heart Church and of the Knights of Columbus.

BLOOD INSURANCE PLAN AT DAVENPORT

A novel variant of the "walking blood bank" is being established at Davenport by the Scott County Medical Society. It follows a plan that is in operation at Rockford, Illinois (the Northern Illinois Blood Bank), but at no more than a very few other places in the country.

The scheme has some insurance features. The heads of families promise, at the time of enrollment, to provide a pint of their blood whenever there may be a need for it, and in return, they are assured that both they and their dependents will receive blood if and when they require it, being charged $10 for processing, but not having to pay the $25 "responsibility" fee. When a sufficient number of heads of families have been enrolled (about 5,000 of them) individual members will be virtually certain of being called upon to give blood no more frequently than once in two years.

When it is found that a previous illness has made the enrollee's blood unacceptable, he is not refused membership, but is urged to have another member of his family promise to give blood in his stead.

Some of the labor unions and several of the major industrial firms in the county are assisting in the enrollment campaign, and it is anticipated that the initial goal of 5,000 members will be reached very shortly.

The JOURNAL will have an opportunity of publishing an authoritative and more or less detailed account of the scheme within a few months. The Davenport physicians feel quite certain that other county medical societies in Iowa will want to follow their lead.

AMERICAN COLLEGE OF ANGIOLOGY

The American College of Angiology will hold its second annual meeting at the Drake Hotel, Chicago, June 9-10, immediately prior to the annual meeting of the AMA. Twenty-eight scientific papers will be presented.

Further information may be obtained from Alfred Halpern, Ph.D., executive secretary, American College of Angiology, 11 Hampton Court, Great Neck, New York.

The Doctor and the Nursing Home

ABRAHAM GELPERIN, M.D., WILLIAM D. PAUL, M.D., AND DANIEL A. GLOMSET, M.D.

NURSING HOMES constitute an ever increasing and important segment of the facilities for care of individuals in our communities who have long-term illnesses, and the number of such institutions licensed by the Iowa State Department of Health has increased from 152 in 1948, to 589 in 1955. But if they are to fulfill their purpose, physicians must help to see to it that they maintain proper standards, and must cooperate with the people who operate them.

Not included in the figures given above, there are unlicensed places that are called nursing homes, and in addition, there are rest homes and care-and-keep homes. Some of us physicians are not cognizant of the differences between a nursing home and a care-and-keep home, as defined by law. All of us should take care to make use only of licensed institutions and to require none of them to exceed its proper function.

Innumerable surveys have defined the proper functions and role of the nursing home. It is a facility licensed to provide nursing care by a registered nurse or registered practical nurse under the supervision of the patients' physicians. In consequence, their proper operation requires uninterrupted cooperation from doctors, individually and collectively, and from county and local health departments, as well as from the State Department of Health.

Much has been written about the deficiencies of nursing homes, but there has been little delineation of the difficulties in that field that are to be found in Iowa, either by official health agencies such as county or local health departments, or by practicing physicians either individually or collectively. And doctors should give serious consideration to the ways in which they might help to correct the faults that can be found here.

A liaison committee representing the Iowa State Medical Society, during each of the past two summers, assisted the nursing home operators' association in setting up postgraduate sessions for nursing home personnel at Drake University, and by arranging for lecturers, demonstrations and panel discussions by physicians. For example, the series have included papers such as "The Arthritic Patient and Rehabilitation of the Hemiplegic Patient," by Dr. Harry Samberg, "The Patient in Your Nursing Home," by Dr. J. D. Fickle, "The Incontinent Patient," by Dr. W. D. Paul, and "Group Therapy Programs With Senile Patients," by Dr. Charles C. Graves. And Drs. D. D. Harris, N. J. McGarvey, D. A. Glomset and W. D. Paul participated in a panel discussion on chronic illness.

The same liaison committee has formulated a series of suggestions that should be of major interest to physicians. The list is doubtless incomplete, but the items are certainly worthy of serious consideration:

1. The doctor should require that a chart be kept for each of his nursing home patients, and he should make it apparent that he relies on the information recorded upon it.

2. He should insist upon the presence of the attending nurse each time he examines one of his nursing home patients, and he should leave specific instructions with her.

3. He should be careful that his prescriptions, and especially the narcotics that he may leave or send to the nursing home, are clearly labelled, and that the nurse is given clear instructions for their use.

4. He must be careful to obey the stringent state and federal narcotics regulations.

5. He should visit his nursing home patients regularly so that he, rather than the nurse, can assess their symptoms and evaluate their progress.

6. He should be prompt in ordering the removal of psychotic or otherwise unmanageable patients from nursing homes.

7. He should be careful to call the operator's attention to deficiencies in diet, nursing care, sanitation, etc., and if they are not remedied promptly, he should report them to the State Department of Health.

8. He must make arrangements for another physician to supervise his nursing home patients whenever he cannot do so himself.

9. He should make sure that each of his patients requiring nursing care is in a licensed institution.

10. He must not expect so much of a nursing home as he does of an accredited hospital.

Obviously, physicians can list a great many suggestions for nursing home operators. However, there are two basic facts that must be understood. First, local health departments, as well as the State Department, are empowered to regulate and control the nursing homes within their respective jurisdictions. And since public health is primarily the responsibility of physicians, individual doctors and their societies should help to enforce the standards and regulations imposed by those governmental authorities.

Second, the nursing home operators have banded themselves together in a praiseworthy effort to

The authors are members of the Iowa State Medical Society's Subcommittee on Chronic Illness.

ACHROMYCIN*

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The prevention and control of cellulitis, abscess formation, and generalized sepsis has become commonplace technique in surgery since ACHROMYCIN has been available. Leading investigators have documented such findings in the literature.

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[1]Albertson, H.A. and Trout, H. H., Jr.: *Antibiotics Annual* 1954-55, Medical Encyclopedia, Inc., New York, N.Y., 1955, pp. 599-602.

[2]Prigot, A.; Whitaker, J. C.; Shidlovsky, B. A., and Marmell, M.: *ibid*, pp. 603-607.

Lederle

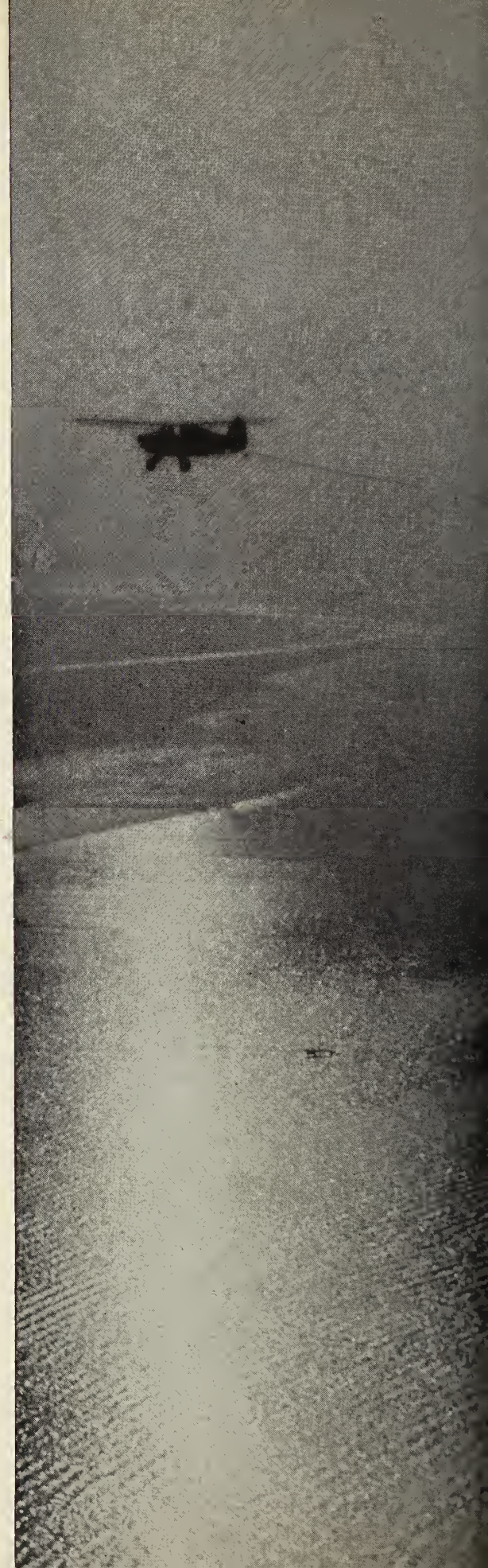
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raise their own standards. Those individuals are keenly aware of the defects of their services, and they are being most cooperative in rectifying deficiencies and dangerous practices.

Physicians have a vital stake in the provision of adequate care for their chronic illness patients. Achieving that goal requires that they understand the problems of the nursing homes and that they make common cause with the nursing home operators. Meetings in several communities at which doctors and operators have exchanged views have done a great deal toward the clarification of mutual problems.

There is a definite need for reorienting and educating the practicing physician, who then can assume his proper role in the care of nursing home patients, just as he has long been doing in supervising those confined to hospitals or to their homes.

MEDICAL REUNION AT SUI

Speakers for the scientific sessions of the 1956 Medical Reunion at the State University of Iowa have been announced by Dr. C. E. Radcliffe, assistant professor of dermatology and chairman of the reunion program. The first session will be opened at 2:30 p.m. on Friday, June 8, by Dean Norman B. Nelson, who will make a welcoming address.

At that first session, the speakers and their topics will be as follows: Dr. J. E. McFarland, Ames, "The Nature of Rheumatic Disease"; Dr. Herman J. Smith, Des Moines, "The Long-Term Use of Anticoagulants"; Dr. James Crowell, of the Mental Health Institute at Independence, "Mentally Ill and the Therapeutic Potentials of the Community"; and Dr. C. B. Meffert, Cedar Rapids, "Reduplication of the Intestinal Tract."

Speakers and their topics for the session beginning at 9:30 a.m. on Saturday, June 9, will be: Dr. C. W. Gilfillan, Hollywood, California, "The Management of Injuries and Diseases of the Shoulder"; Dr. Harold Morgan, Mason City, "X-ray Diagnosis of Intestinal Obstruction"; Dr. A. L. Sahs, head of the SUI Department of Neurology, "Diagnostic Problems of Neurology"; and Dr. A. E. Braley, head of the SUI Department of Ophthalmology, "Diagnostic Problems of Ophthalmology."

Mr. Forest Evashevski, head football coach at SUI is scheduled to speak at the Medical Stag Dinner at the Iowa City Elks Club at 6:30 p.m. on Friday, June 8.

All visitors to the reunion are urged to register at tables which will be placed at the third-floor entrance to the Medical Ampitheater in the University's General Hospital. Registration will be held from 9:00 a.m. until noon and from 2:00 p.m. to 5:00 p.m. on Friday, and from 9:00 a.m. until noon on Saturday.

ACCIDENTS OF IOWA FARM PEOPLE

The figures on accidental injuries to farm people in 50 Iowa counties between August 1, 1955, and January 31, 1956, a six-months period, have recently been gathered and tabulated by the Iowa Farm Bureau Women. Though the report neither lists the counties nor estimates their farm population, the total of mishaps, 2,060, is by no means a negligible number.

Three types of accidents accounted for 57 per cent of that number, falls 27 per cent (548), machinery 18 per cent (375), and motor vehicles 12 per cent (247). Motor vehicle accident injuries were decidedly concentrated in the age group 15-29, 35 per cent of the victims being thus comparatively youthful.

There were 62 fatalities reported—46 male, 13 female and three of whom the sex was not reported. Twenty-nine of them resulted from motor vehicle smash-ups.

Unquestionably, farming is a dangerous occupation, more hazardous now that it has been highly mechanized. Farm work was said to have been involved in 946 of the 2,060 accidents. Housework ranked third, accounting for 234 accidents. Second place was taken by recreational activities. The total in that category was 467, and the breakdown showed that 160 of them involved falls, and 88 resulted from participation in sports of various sorts, including school athletics (44).

The survey is being continued for another six months.

AN IMPRESSIVE RECORD

During the 15 years since the "Series E" U. S. Defense Bonds were first introduced, Iowans have invested more than $2,200,000,000 in them and in their companion issue, the "Series H" bonds. That figure is all the more impressive when one takes into account the fact that banks, corporations, associations and other groups are ineligible to purchase those securities. Only individuals may buy them, and at least as regards Series E, there is a strict limit on the amount that any one person can invest each year. The value of such bonds still held by citizens of Iowa is estimated at more than $1,300,000,000.

Unlike Series E bonds, on which one collects interest only at the time of redemption, the Series H bonds, first offered to the public in 1952, bear interest at 3 per cent payable semiannually. Like Series E bonds but unlike other obligations of the federal government, the Series H bonds are nontransferable, and thus never fluctuate in market value. Both Series E and Series H have a further advantage for the investor in that they can't be lost through fire, theft or carelessness.

MENTAL ILLNESS

PSYCHODYNAMIC MEDICINE AND PSYCHOSOMATIC DISORDERS

Some writers use the term *psychosomatic* to describe the whole of medicine, suggesting that in treating every sort of ailment one must consider psychologic as well as physiologic factors. Others use it to designate only certain conditions in which psychologic factors appear especially important in the causation and in the prognosis. These two groups are, to some extent, opposed to one another. The first of them use the term to suggest that every disease has emotional components, whereas the second group seem to suggest that it is only certain disorders that contain them. The first group are of course correct in their point of view, but to avoid confusion, it seems that we should agree to use the term *psychodynamic* whenever we refer to the non-physiologic elements of diseases in general, and that we should reserve the term *psychosomatic* for reference to the ailments in which an emotional factor is particularly prominent.

Psychosomatic disorders are receiving special consideration today because of their apparent increase in frequency. They are currently set aside from other mental disorders so that data may be accumulated concerning their etiology and course, and concerning their relation to other mental disorders.

In many diseases of unknown etiology—peptic ulcer, colitis, essential hypertension, migraine, asthma and rheumatoid arthritis, for example—emotion and stressful life situations appear to precipitate or prolong the patient's symptoms to a great degree. Furthermore, it seems probable that in the course of time it will be shown that their causes are psychologic, too. These are the psychosomatic disorders—ones in which it is postulated that emotional tension and social maladjustment lead to chronic dysfunction of some organ system and eventually to tissue damage in the overworked organ.

In contrast to the sensory and motor symptoms of conversion hysteria such as anesthesia and paralysis, the psychosomatic illnesses—or stress disorders, as they are sometimes called—were initially thought to occur only in organs controlled by the autonomic nervous system. But recently it has been argued that psychosomatic disorders are not exclusively autonomic. Rather, the argument goes, every part of the body can participate in the reaction to stress, and skeletal muscle spasm is one of the commonest of such responses. (The corollary of this proposition is that autonomic disturbances also occur in conversion hysteria—in hysterical vomiting, for example.)

Psychosomatic disorders are bounded on one side by conversions and other types of psychoneurosis, and on the other by organic diseases of known etiology. Of course, as has been said, the latter of those two sorts—the diseases that are occasionally spoken of as "somatopsychic disorders"—fall within the province of psychodynamic medicine, for no disease is entirely free from psychologic features. Adaptations to alteration in bodily functions, to pain, etc. place important demands upon the patient and frequently result in personality change.

But it has been estimated that from a third to a half of the patients who come to the offices of general practitioners manifest ailments that fall within the psychoneurotic and psychosomatic classifications. Thus it is clear that the general practitioner and the internist must share the psychiatrist's concern for such patients. Furthermore, diagnosis of psychologic factors must be based upon something more than the simple finding that somatic factors are insufficient to account for the total disease picture. It should include a careful evaluation of the patient's personality and his emotional adjustment. To this end, a life history should be taken and other psychodiagnostic procedures, projective technics in particular, should be employed whenever possible.

In therapy, likewise, somatic features require treatment in their own right, and it must be recognized that although medication can relieve symptoms temporarily, recurrence is almost certain unless the psychologic disturbance is treated.

As initial steps in psychotherapy, one can allay the patient's symptoms by helping him to put them into perspective. The physician can point out that the symptoms are responses to stress, that everyone, given sufficient stress, will develop symptoms, and that within limits, one can continue functioning despite the symptoms. In subsequent therapeutic steps, the patient can be led to discover the meaning of his psychoneurotic symptoms, and although an analysis of the disturbed function in a psychosomatic disorder may be impossible, the patient can be led to sort out and examine the personality features associated with it.

The essence of psychotherapy is a corrective emotional experience. The patient's anxieties must be appraised, his defenses relaxed and his blocked drives released. The forces available for such a growth process are small in contrast with those often at hand for the treatment of straightforward organic diseases and in contrast with the forces which led to the disorder and which still may be sustaining it. But what forces there are lie in the hands of the physician, and his interest, understanding and skill are integral parts of psychotherapy.

Finally, there is the matter of research in psychodynamic medicine. Much of what is known today about psychoneurosis was learned by psychiatrists as they attempted to diagnose and treat patients. It is to be expected that as general practitioners and internists practice psychodynamic medicine, they likewise will uncover truths regarding the psychosomatic disorders that constitute such a large part of today's diseases of unknown etiology.

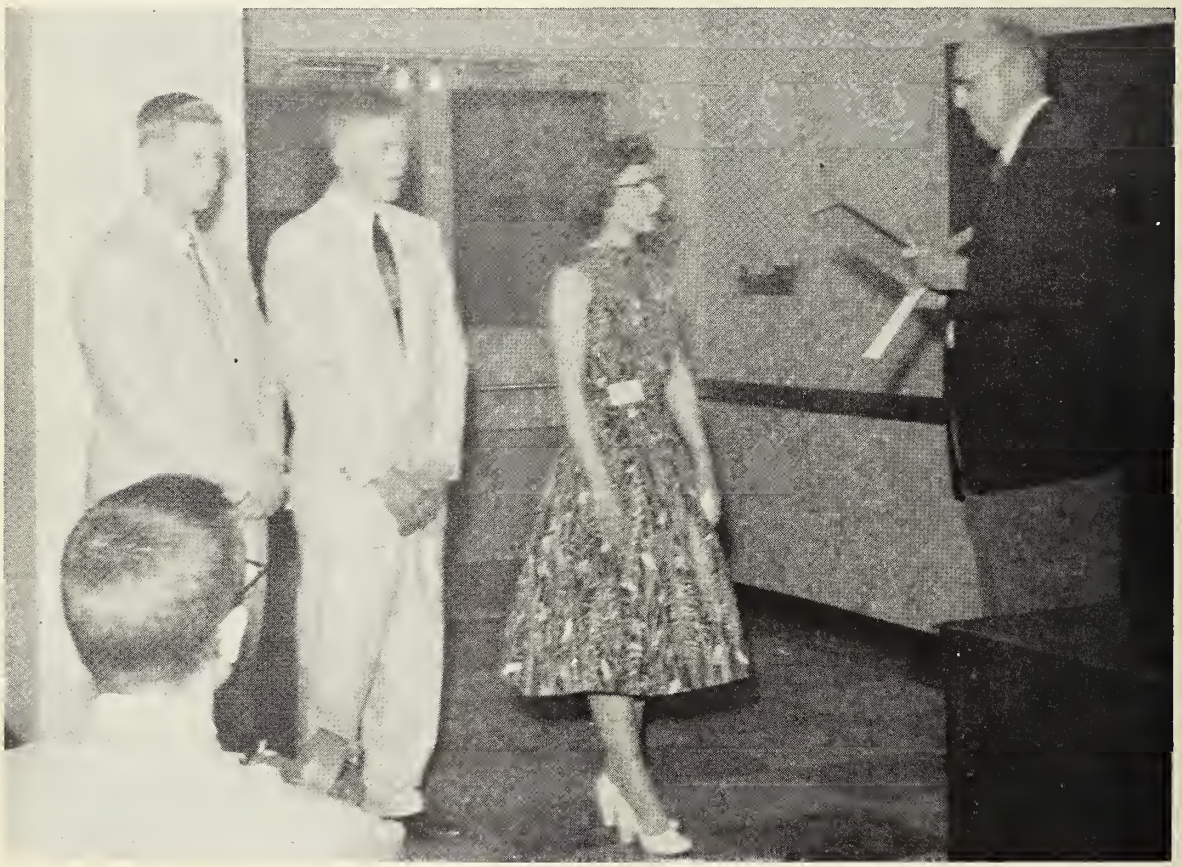
OTOLARYNGOLOGY

The Department of Otolaryngology of the University of Illinois will hold its Annual Assembly from October 1-7, 1956. The program will consist of an intensive series of lectures and panels, with evening sessions devoted to surgical anatomy of the head and neck, and histopathology of the ear, nose and throat. Interested physicians may secure additional information by addressing the Department at 1853 West Polk Street, Chicago 12, Illinois.

ROCKY MOUNTAIN CANCER CONFERENCE

The list of guest speakers for the Rocky Mountain Cancer Conference, which is to be held at Denver on July 11 and 12, are Lauren V. Ackerman, M.D., of the Department of Surgery at Washington University, St. Louis; George V. Brindley, M.D., of Temple, Texas, president of the American Cancer Society; Charles L. Dunham, M.D., of Washington, D. C., director of the Division of Biology and Medicine of the Atomic Energy Commission; Charles Huggins, M.D., of the Ben May Laboratory for Cancer Research, Chicago; Dwight M. Murray, M.D., of Napa, California, 1956-1957 president of the American Medical Association; Eugene P. Pendergrass, M.D., professor of radiology at the University of Pennsylvania; Grant H. Sanger, M.D., of New York City; and John R. Schenken, M.D., of Omaha. The program is sponsored jointly by the Colorado State Medical Society and the Colorado Division of the American Cancer Society.

PRIZE-WINNING ESSAYISTS



Dr. Lonnie A. Coffin, president of the Iowa State Medical Society, is shown presenting the first-prize award of $100 to Clarita Sterling, of Sheldon, for her essay on the subject "The Advantages of Private Medical Care." Charles D. Fjeld, of Primghar, the second-prize winner, is shown behind Miss Sterling, and the third-prize winner, John W. McCurdy, of Oskaloosa, is behind him. The papers will be entered in the national contest for high school students sponsored by the Association of American Physicians and Surgeons.

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

TEXT BOOK OF MEDICAL PHYSIOLOGY, by *Arthur C. Guyton*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $13.50).

HUNTERTON MEDICAL CENTER, by *Ray E. Trussell*, M.D. (Cambridge, Mass., Harvard University Press, 1955. $3.75).

IN THE DOCTOR'S OFFICE, Second Edition, by *Ester Jane Parsons*. (Philadelphia, J. B. Lippincott Company, 1956. $3.95).

THE ROCHESTER REGIONAL HOSPITAL COUNCIL, by *Leonard S. Rosenfeld* and *Henry B. Makover*. (Cambridge, Mass., Harvard University Press, 1956. $3.50).

PULMONARY CARCINOMA, ed. by *Edgar Mayer*, M.D., and *Herbert C. Maier*, M.D. (New York, New York University Press, 1956. $).

BOOK REVIEWS

THE TRUTH ABOUT CANCER, by *Charles S. Cameron*, M.D. (New York, Prentice-Hall, Inc., 1956. $4.95).

Dr. Cameron's book is not primarily intended for the medical profession. Rather, it is meant for wide distribution among the general public. Dr. Cameron's close acquaintance with the very intricate problems of cancer for many years makes him an outstanding authority in this field. His approach to the subject and the clarity and simplicity of his presentation are such as to give a message of hope to everyone who reads the book.

His presentation is most informative about the facts of cancer, and it is certainly intended to dispel the traditional ignorance and fear that have caused many unfortunate people to miss their chance of early detection of this dreadful disease.

This book should be read by every physician as well as by every layman.—*S. F. Singer*, M.D.

CURRENT THERAPY, 1956, ed. by *Howard F. Conn*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $11.00).

The eighth annual edition of this classic is now on the market. There has been little change in the make-up of the book over the years. The 632 pages in the new issue have been edited by Dr. Howard Conn, with the help of 12 consulting editors, and there are several hundred contributors. Each of the 16 sections deal with the diseases of a particular area, organ or group of organs—i.e., skin, urogenital tract, endocrine system, etc. Within each section, disease conditions are listed alphabetically, and each disease is succinctly dealt with by one or more authors. This year, as in years past, some of the authors are familiar ones and some are new, with the result that the book is relatively "new" each year.

The reviewer has been delighted to note that the editor has resisted the temptation to make his book bigger and bigger each year as new topics have been introduced. Actually, as treatments have improved, the passages dealing with them have been abbreviated in many instances, and sections dealing with diseases such as mumps, multiple myeloma and hepatitis, for which little treatment is known, have been shortened. On the other hand, new material has been added in many places. Examples of this are the discussions of cat-scratch disease, enterobiasis, atelectasis and bronchiectasis. As a result, the additions just about equal the deletions and abbreviations.

Because the general format is designed for easy reading and consultation in the doctor's office and because the material is reliable and is simply presented, the book remains one of the most valuable of office references for the practicing physician.—*Daniel A. Glomset*, M.D.

LABORATORY TESTS IN COMMON USE, by *Solomon Garb*, M.D. (New York, Springer Publishing Co., Inc., 1956. $2.00).

This book grew out of a series of lectures that the author gave to some graduate nurses. Its purpose is to acquaint the reader with common laboratory tests and their meaning, and it includes methods for collecting specimens as well as for interpreting test results, but does not place much emphasis on the technics involved in the actual testing.

In addition to nurses, for whom it is primarily intended, the book will prove helpful to the busy general practitioner who does not have time to make use of the more voluminous standard textbooks on laboratory methods, and to the medical student. The tables of suitable tests, arranged according to systems and organs, are very useful, for they provide summaries of proper methods for collecting specimens, the fundamentals of test procedure, and the normal values. —*F. C. Coleman*, M.D.

HAND SURGERY IN WORLD WAR II, ed. by *Sterling Bunnell*, M.D., for the Medical Department of the United States Army. Washington, Office of the Surgeon General, Department of the Army, 1955. $3.75).

It is often said that plastic surgery was born during World War I. Similarly, hand surgery came into being as a well-established entity during World War II.

In October, 1944, Surgeon General Kirk, of the Army, appointed Dr. Sterling Bunnell to act as civilian consultant to direct the repair and rehabilitation of wounded-hand cases that were pouring into hospitals in the Zone of the Interior. Nine hand centers were

designated, one in each service command in this country, and about 22,000 injured hands were subsequently treated at those centers.

Dr. Bunnell made a series of eight tours of those centers during the two and a half years following his appointment. He surveyed the problems at each center, gave instructional courses to the medical officers assigned to the work and personally demonstrated his methods in the operating rooms of the various general hospitals.

The first chapter in this new book summarizes the conclusions that Dr. Bunnell reached as a result of this monumental experience, and the chapters that follow it each contains a separate contribution by a surgeon in charge of an overseas theater or a hand center in a general hospital in this country.

The value of the volume lies in the fact that individual conclusions are drawn from the independent experience of each contributing surgeon. The book will be a valuable addition to the reference library of any general, orthopedic or plastic surgeon who is interested in the many difficult problems common to traumatic surgery of the hand in war or in peace.—*Julian M. Bruner,* M.D.

THE NEUROSES IN CLINICAL PRACTICE, by *Henry L. Laughlin,* M.D. (Philadelphia, W. B. Saunders Company, 1956. $12.50).

This book contains a wealth of material dealing with the various forms of anxiety and the roles they play in the neuroses that the physician encounters in clinical practice. Anxiety is defined, it is differentiated from fear, and its positive and negative aspects are discussed. Intrapsychic mechanisms of defense are enumerated and are intelligently and clearly discussed in a chapter which precedes those which deal with specific neuroses. Then, in the chapters dealing with the separate neuroses, the author gives clear and simple descriptions of incidence, pathogenesis, symptoms, clinical features, diagnosis and treatment.

Though Dr. Laughlin endeavors to restrict his discussion to the nonpsychotic disorders, he understandably finds it necessary to deal with the conditions in the borderline area and, in some degree, to deal with the neurotic manifestations that are possible in psychotic states. All material is treated in a dynamic way, and excellently selected case histories are utilized in making the text human and understandable.

The psychiatrist, the psychologist and the psychiatric resident will find this a valuable addition to his library, and the clear, readable style employed by the author will appeal to specialists in other fields and to general practitioners as well. Physicians who are not primarily interested in psychiatry may find that some of the technical terms and psychiatric concepts employed are somewhat difficult to digest, but the detailed glossary that Dr. Laughlin has provided is, in the reviewer's opinion, unparalleled in present medical literature.—*E. P. Eckart,* M.D.

PATHOLOGY FOR THE SURGEON, by *William Boyd,* M.D. (Philadelphia, W. B. Saunders Company, 1955. $12.50).

This book was previously entitled SURGICAL PATHOLOGY, and six editions of it were published between 1925 and 1947. Dr. Boyd then decided to rewrite it with the idea of presenting the practical aspects of surgical pathology from the standpoint of the surgeon, rather than from that of the pathologist. There is a brief presentation of the clinical findings produced by pathophysiologic changes in systems and specific organs in the presence of disease, and there is a successful attempt at brevity and practicality in the descriptions of gross and microscopic pathology.

The book is divided into two sections. The first of them consists of 68 pages and is a brief review of general surgical pathology. The remainder (over 600 pages) takes up special surgical pathology. This section is very well organized, a convenient table of contents having been placed at the beginning of each chapter. A discussion of the anatomic and physiologic features of the organ or organ system precedes a short description of the gross pathology and microscopic pathology.

The illustrations are adequate, there being many photographs of gross specimens and numerous photomicrographs. Both types are well placed and are helpful to the reader in understanding the text.

As well as being helpful to physicians and surgeons as a daily reference, this book should be very valuable to the young surgeon who is preparing for his board examinations. As a pathologist, I shall also find it useful.—*F. C. Coleman,* M.D.

NATIONAL CANCER CONFERENCE

The American Cancer Society and the National Cancer Institute will co-sponsor the Third National Cancer Conference on June 4-6 at the Sheraton Cadillac Hotel, in Detroit.

This meeting will consist of a series of symposia on various cancers by site and will summarize recent clinical developments in the diagnosis and treatment of cancer. A symposium will be held on carcinomas of each of the following: Breast, female genital tract, gastrointestinal tract, head and neck, lung, blood and prostate. In addition, representatives of selected institutions will report on chemotherapy and on the current curability of cancer.

All physicians are cordially invited to attend. An interesting program is being planned for doctors' wives.

AMERICAN COLLEGE OF CHEST PHYSICIANS

The twenty-second annual meeting of the American College of Chest Physicians will be held at the Hotel Sherman, Chicago, June 6 through 10. The scientific program will include prominent speakers on all aspects of chest and lung diseases. In addition to formal presentations, there will be a number of symposia, round-table luncheon discussions, seminars and motion pictures. All interested physicians are invited, and there will be no registration fee.

Examinations for fellowship in the College will be held on Thursday, June 7.

Iowa Academy of General Practice

REELECTION

This is reelection year for approximately one-third of the members of the Iowa Chapter of the AAGP. Reelection each three years is something to which all Academy members look forward with anticipation. Only by doing their best to maintain the standards set by their Board of Directors can they accomplish the things for which the organization was established.

In order to continue membership in the nation's second largest medical organization, it is necessary that the GP complete 150 hours of postgraduate education each three years. The reports that the doctors make of their attendance at such courses and meetings are checked, and each is notified of his standing. No other medical organization requires its members to keep in step with the changing times by attending lectures and clinics. This one fact makes the AAGP a successful, respected organization. The membership certificate displayed on an office wall is a pledge to patients that modern medicine is being practiced. This certificate has to be surrendered if the membership is not renewed.

In order that the Iowa Chapter office can complete the records and also to save time and avoid extra expense, members are asked to send in their reports at once.

SCIENTIFIC MEETINGS IN IOWA

The Iowa Chapter of AAGP will conduct its Annual Meeting and Scientific Program at the Savery Hotel, in Des Moines, on September 13 and 14, 1956. The Chapter will also conduct a one-day meeting in Waterloo in November of this year. Category I credit will be given for both of them. One needs only to plan far enough in advance in order to attend them.

MEMBERSHIP CLASSIFICATIONS OF AAGP

Active. All practicing physicians who are graduates of approved medical schools, are duly licensed, are members of their county and state medical societies, have served a one-year rotating internship or its equivalent, and have completed one of the following:

(1) Two years of graduate training approved by the Commission on Education

(2) One year of approved graduate training plus two years of general practice

(3) Three years of general practice.

Active (Exempt). Those active members past the age of 70 and/or those who have engaged in active practice more than 30 years. Exemption must be requested by the member and granted by the state chapter.

Associate. (1) Interns and residents engaged in approved training programs. (2) Physicians in general practice not otherwise eligible for membership.

Inactive. (1) Active members incapacitated or unable to engage in practice. (2) Those on temporary military duty. Physicians must be granted this status by a state-chapter election.

Sustaining. Any member who has ceased to practice medicine (who has entered another field of endeavor) and desires to retain affiliation.

Honorary. A person of national or international distinction elected by the Congress of Delegates.

RADIOISOTOPES IN MEDICINE

The U. S. Atomic Energy Commission has just issued an 817-page book entitled RADIOISOTOPES IN MEDICINE, a complete transcript of a special course on the subject which was conducted at the Oak Ridge Institute of Nuclear Studies in September, 1953. The editors are Gould A. Andrews, Marshall Brucer and Elizabeth B. Anderson of the Institute's medical division.

Lecturers in the course, whose discussions are presented in the book, included outstanding authorities in the fields of medicine and radioisotopes from throughout the country. The contents include papers on the availability and uses of isotopes, problems in radiation, radiation measurement and dosimetry, tumor localization, diagnostic and therapeutic uses of radioiodine, metabolic and vascular studies, isotopes in the study and treatment of hematologic disorders, therapy with radioactive colloids and therapy with external and implanted sources.

The price is $5.50, and the volume can be secured from the Superintendent of Documents, U. S. Printing Office, Washington 25.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

POLIOMYELITIS VACCINE SUMMARY

Following is a tabulation of the use that has been made of the poliomyelitis vaccine that the Iowa State Department of Health distributed to counties for medical hardship cases. Completion of immunizations in Woodbury County for youngsters who had received placebo in the 1954 field trial program accounts for the relatively large number of persons shown to have received third injections. When fewer than the anticipated number of 3-12 year olds were presented for inoculation, the authorities in two counties made their excess vaccine available to other individuals, notably ones in the 15-19 year group.

MONTH COVERED BY REPORT—APRIL, 1956

Groups Receiving Injections	No. of Individuals Receiving 1st Injection	2nd Injection	3rd Injection	Total Injections
1. Under 5 Years	1340	977	50	2367
2. 5 through 9 Years .	1408	1127	1662	4197
3. 10 through 14 Years	853	639	1064	2556
4. 15 through 19 Years	154	86	0	240
5. Total Injections Under 20 Years	3755	2829	2776	9360
6. Expectant Mothers .	232	103	11	346
7. Total Injections Under 20 Years and Expectant Mothers .	3987	2932	2787	9706

SALK VACCINE SHIPMENTS

The following is a list of all of the shipments of poliomyelitis vaccine that have been received in Iowa since April 1. Although the first ones have release dates of March, they actually arrived after April 1. To date (May 9), more vaccine has been received since April 1 than during all of the preceding four months.

MORBIDITY REPORT FOR MONTH OF FEBRUARY

Disease	1956 Apr.	1956 Mar.	1955 Apr.	Most Cases Reported From These Counties
Diphtheria	2	2	0	Humboldt 1, Pottawattamie 1
Scarlet Fever ...	106	193	142	Polk, Clay, Clinton, Linn, Van Buren
Typhoid Fever ..	4	3	2	Cerro Gordo 2, Montgomery 1, Story 1
Smallpox				
Measles	1287	907	2240	Buena Vista, Polk, Sac, Hamilton, Clinton
Whooping Cough	38	58	160	Polk, Lee, Story, Scott, Howard
Brucellosis	18	24	28	Jasper 5, Cedar 2, others scattered 1 to a county
Chickenpox	874	1291	679	Polk, Des Moines, Dubuque, Scott, Buena Vista
Meningococcus Meningitis	0	0	1	
Mumps	277	360	1039	Dubuque, Des Moines, Scott, Woodbury, Linn
Poliomyelitis ...	6	1	9	Cherokee 1, Lee 3, Linn 1, Montgomery 1
Infectious Hepatitis	40	51	102	Des Moines, Clinton, Appanoose, Linn, Scott
Rabies in Animals	35	11	44	Marion 10, Jasper 7, Louisa 3, Clinton 2, Webster 2, others scattered 1 to a county
Malaria	0	0	0	
Psittacosis	0	2	0	
Q Fever	0	0	0	
Tuberculosis ...	27	25	50	For the State
Syphillis	49	51	120	For the State
Gonorrhea	45	64	39	For the State

List No.	Company	Amount (cc.)	Amount for State Dept. of Health	Release Date	Expiration Date
18	Parke-Davis	13,824	10%	Mar. 27 '56	Sept. 27 or later
19	Lilly	34,020	10%	Mar. 30 '56	Sept. 1956
	Parke-Davis	8,127	10%	Mar. 30 '56	Sept. 1956
20	Lilly	15,300	10%	Apr. 9 '56	Sept. 1956
	Parke-Davis	11,412	10%	Apr. 9 '56	Sept. 1956
21	Pitman-Moore	14,299	10%	Apr. 12 '56	Sept. 14 & 20 '56
22	Pitman-Moore	11,016	10%	Apr. 16 '56	Sept. 20,1956
23	Lilly	28,971	10%	Apr. 24 '56	Oct. 24, 1956
24	Lilly	30,699	10%	Apr. 30 '56	Oct. 30, 1956
	Parke-Davis	9,900	10%	Apr. 30 '56	Oct. 30, 1956
	Wyeth	11,970	10%	Apr. 30 '56	Oct. 30, 1956

NEW STATE POLICY ON SALK VACCINE

At a meeting that the Iowa State Department of Health held on April 24 with the State Board of Health, the Poliomyelitis Committee of the Iowa State Medical Society and medical representatives from the Governor's Committee on Poliomyelitis Vaccine Distribution, the following policy was set up:

1. Effective May 15, the eligible age group in Iowa was extended to include all individuals from 0 through 19 years of age, plus pregnant women.

In Iowa last year, 64,414 babies were born, and on the assumption that an approximately equal number are to be born this year, it can be expected that about 65,000 women will be eligible for shots, in addition to the 905,000 children under the age of 20. Thus there are 970,000 persons eligible for vaccine.

About 117,000 children were given two injections of vaccine in the school program of 1955. In the 1954 field trial program (Scott, Linn and Woodbury Counties) 13,000 others had their immunizations completed in 1955. From September, 1955, to date (April 25, 1956), enough vaccine has come into Iowa to give two injections each to 187,000 other children and pregnant women under the current program. This totals about 317,000 children and pregnant women. About one third of the group made eligible as of May 15, according to these estimates, have had two injections of vaccine. Of course this total is reduced somewhat because a small percentage have received three injections, rather than two. This may be offset a bit, however, by the number that were given vaccine from the small amount available commercially and received by physicians in April and May of 1955. If such variations are allowed for, the above estimates are the best that can be given.

2. Third injections of poliomyelitis vaccine should be delayed until all of those persons in the eligible groups (0-19 years and pregnant women) have had a chance to receive at least one injection. The interval between the second and third injections may be lengthened beyond the regular seven months' interval without loss of protection.

3. Because of the possibility of the "provocative reaction," first injections of poliomyelitis vaccine should not be given during the season of high incidence of poliomyelitis, July 1 to November 1. This reaction does not occur following second or third injections of poliomyelitis vaccine. Thus, second and third injections may be given during that time.

4. Other immunizations such as triple toxoid injections and smallpox vaccinations should be withheld between July 1 and November 1.

5. There is an increased incidence of bulbar poliomyelitis in persons who have had tonsillectomies, and the incidence is greater in those who have had tonsillectomies shortly before their attacks of poliomyelitis. It is therefore advised that only emergency tonsillectomies be performed during the poliomyelitis season.

6. Gamma globulin as prophylaxis for family and other close contacts of cases of poliomyelitis does not reduce the numbers of secondary cases in these groups. Gamma globulin, to be effective, must be given before exposure to poliomyelitis has occurred. Because family contacts have usually been exposed to the case a week or more before gamma globulin has been given, gamma globulin has proved of no benefit for them.

The State Department of Health has no gamma globulin to distribute to physicians for poliomyelitis prophylaxis.

HUMAN TRICHINIASIS

Regulations in 47 states which prohibit the feeding of raw garbage to swine may be an important factor in the significant reduction in the incidence of Trichinella spiralis in pork products, according to W. J. Zimmerman, *et al.*, of Iowa State College.* Repeating tests they first made in 1944-45, they found larvae in no more than one-fifth as many samples of bulk and link sausage.

There were 187 cases of human trichiniasis reported in the United States through August, 1955, of which 10 occurred in Iowa, they said. The incidence has fluctuated widely in the last decade. In 1945, there were 257 cases in the U. S., and 133 of those were in Iowa. However, in 1950 there were 327 cases in the U. S., of which none were in Iowa.

The source of infection from grain-fed swine remains an unsolved problem. To determine whether wild animals were the reservoir, they examined 61 rats and found 14 of them positive. Similarly, 12 of 85 mink had the infestation, 30 of 252 adult foxes, 1 of 40 opossums, and 2 of 229 raccoons. A variety of other animals were examined, with negative results.

The Iowa study group believes that a possible explanation for the absence of infection in carnivorous birds and snakes is that the body temperatures in those forms of life do not favor survival of the parasites.

There are two theories as regards the mode of transmission from wild animals to swine. They are fecal transmission, and direct transmission, which takes place when pigs eat infested carcasses. Nine tests of fecal transmission, in which infected rats and foxes were used as donors, and pigs, rats and foxes as recipients, all proved negative. But the researchers aren't ready to consider that possibility disproved. It would be impossible as well as impractical to eradicate all species of wildlife which may act as reservoirs, they pointed out.

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* PUBLIC HEALTH REPORTS, 71:294, (Mar.) 1956.

WOMAN'S AUXILIARY NEWS

Mrs. Edw. B. Hoeven, *Woman's Editor*
224 East AltaVista, Ottumwa

Mrs. Wilson Wolfe, *Asst. Woman's Editor*
N.E. Elm Street, Ottumwa

THE 1956 ANNUAL MEETING

The 1956 Annual Meeting of the Woman's Auxiliary to the Iowa State Medical Society began with an Executive Board meeting on Sunday, April 22. At the session on Monday, Father Lloyd Connelly gave the invocation, and the members then repeated the Auxiliary Pledge in unison. I then introduced our distinguished guest, Mrs. John M. Chenault, of Decatur, Alabama, Mrs. Dean King, the president-elect of the Iowa Auxiliary, and the county presidents, councilors, and committee chairmen. The business of the day was transacted.

Mrs. Howard Smith, assisted by Mrs. Keith Chapler at the organ, presented a lovely memorial service.

The reports of all officers, state committee chairmen and county presidents gave evidence of the value of our organization to the medical profession. All of them are printed in the ANNUAL REPORT BOOK, and I hope each member will read those accounts of our activities and encourage her husband to do likewise.

The Future Nurse Clubs were introduced by Mrs. Elmer Larsen, and Dean Kitchell, of the SUI College of Nursing, read a paper entitled "Nursing —a Look to the Future." Our Future Nurse Clubs continue to grow, and there was a day filled with activities for them at the Annual Meeting. We have 63 organized clubs which are registered with the state, but feel that there are at least 100 of them throughout the state. We are proud to report that 150 girls have entered training in Iowa this year, having received their inspiration to study professional nursing as a direct result of having belonged to a Future Nurse club while attending high school.

The benefit dance at the Savery on Monday night was well attended and netted over $350 for the Nurses' Loan Fund.

We were privileged to enjoy an illustrated lecture on South American mosaic presented by Mrs. Bernice Setzer, art supervisor for the Des Moines Public Schools.

The gracious first lady of Iowa, Mrs. Leo G. Hoegh, opened her lovely home to the Woman's Auxiliary for tea on Monday afternoon. In the receiving line, besides Mrs. Hoegh and me, were Mrs. King and Mrs. Fred Gerken. Mrs. Kilgore was in charge of the dining room.

If you missed Mrs. King and me on Tuesday morning in the Hospitality Room, we are very sorry. Along with Mrs. R. H. Moe, who represented our legislative chairman Mrs. Chase, we had been asked to attend a breakfast meeting of the ISMS Legislative Committee.

The officers for 1957 were elected on Tuesday morning, and Mr. Robert Throckmorton gave us a most informative speech on medical legislation and answered questions from the members who were present.

Mrs. Fred Gerken, the newly-chosen president-elect, and I were very grateful for the fine attendance at the school of instruction for county presidents and councilors, and hope we were able to answer questions satisfactorily.

Mrs. W. R. Hornaday, of Des Moines, presided at the President's Luncheon. The invocation solo, "The Lord's Prayer," was sung by my daughter Gail. She sang beautifully, and we were very proud of her. The Roosevelt High School Concert Chorus sang several numbers during luncheon. Mrs. Meril-

AWARD RECIPIENT



Mrs. C. C. Inman

lat's daughter Cathy is a member of that group.

A Presidential Award for Community Service, a recognition that is given to an Iowa woman who is not a doctor's wife, was presented to Mrs. C. C. Inman, president of the Woman's Division of the Iowa Farm Bureau Federation for her interest in rural health and health education.

Mrs. George Watters explained the Memorial Book for the Loan Fund, in which space is to be allotted for live memorial gifts. Mrs. John Chenault, representing the Woman's Auxiliary to the American Medical Association, spoke on the topic "Your Program IS Important." She gave the county Auxiliaries many good ideas, and she also installed the incoming officers in an inspiring program.

Achievement Award certificates were issued by Mrs. Lester Hegg, and the exhibit contest prizes were awarded by Mrs. S. P. Leinbach. We had been allotted space for an exhibit at the Veterans Auditorium for the first time this year by the State Medical Society.

Tuesday afternoon's session was concluded by a style show presented by Norman Cassiday, Inc., and that firm also donated a beautiful handbag as the door prize.

After adjournment, a post-convention Board of Directors Meeting was held, with Mrs. Dean King, the new president, presiding. She presented her committee chairmanship apointments, and they were approved by the Board.

To Polk County, we owe an ever increasing debt of gratitude for planning and executing another fine convention program.

The increased registration—nearly a hundred this year—is an encouragement to those who work hard to give us good conventions. I should like to thank the county Auxiliaries for their splendid response in sending delegates so as to make our first attempt at holding a Conference of Delegates a successful venture.

We are happy to welcome two new county Auxiliaries and 73 members at large, representing 31 unorganized counties. In the not too distant future, we hope that the four large counties where doctors' wives are doing a great deal in community service along the same vein with our state program will see fit to seek affiliation with us.

In closing, I should like to say once again that I think it a great honor and privilege to have served as your president, and it is a pleasant memory that I shall always cherish.

Mrs. Charles H. Flynn
Immediate Past President

Attend the Annual Convention
of the
Woman's Auxiliary to the A.M.A.
Chicago, June 11-15

INAUGURAL ADDRESS

The presidency of the Woman's Auxiliary to the Iowa State Medical Society poses a great challenge. I accept that challenge with some pride, but with exceeding humility. To the best of my ability I shall endeavor to merit the trust that you have placed in me.

Our organization is honored by the responsibilities that the Iowa State Medical Society has granted to it, but our duties and our privileges are also parts of our heritage as Americans. Like our forebears, we want to work, proud and unafraid, beside our husbands. In the past, the American woman's place was behind a plow or behind the wheel of a covered wagon moving westward, and now no less than in pioneer days, her place is one in which she can share in a cooperative effort. It has been said, "The hand that rocks the cradle will also help guide the man." Good health for everyone is the highest goal that a nation can hope to achieve, and we can assist our husbands as they strive tirelessly for its attainment.

Never in medical history have doctors been burdened with so many responsibilities and such grave problems. A constant succession of scientific miracles and discoveries has revolutionized many of medicine's principles and practices, and has quickened its pace and tempo to that of jet propulsion. Thus, in addition to their lavish expenditures of time and energy in caring for the sick and injured, physicians must work constantly in order to keep abreast of new developments. And in addition, they must find solutions for social, economic and medical-education problems if medicine is to remain free in our country.

Our doctors deal with the greatest of miracles daily—the miracles of life and death. Dr. Elmer Henderson has said, "The real miracle of American medical progress is the miracle of America itself, the motivating power of the American spirit of free men—unshackled and unfettered—with freedom to think, to create and to cross new frontiers in medicine." In the words of Dr. Ernest Irons, "Medicine is now at the forefront of a battle which involves the survival of our democracy."

We can be proud of the Iowa State Medical Society, for it has had the courage to face a challenge to its members' professional freedom during this past year, and has capably upheld the ideals and principles of American Medicine. As Tom Hendricks says, "Behold the turtle! He makes progress only when his neck is out."

Through their national and state societies and in cooperation with other health agencies, our busy and burdened doctors have endeavored to answer every need for improvement in the health care of this nation. They have asked our help in promoting such of their programs as the American Medical Education Foundation, the Eighty Dimes Campaign for the National Foundation for Medical Education, the Nurse Recruitment program, the Men-

tal Health programs, the plan for disseminating health information through TODAY'S HEALTH magazine, and the legislative program. We have not been asked to stand behind the plow, but we have been asked to inform ourselves and to take action in enlisting public support for the work our husbands are doing.

We can best aid our husbands through the Woman's Auxiliary. Actually, each of us became an Auxiliary member the day she took her marriage vows, though she may not have remembered immediately to pay her dues. None of us could help learning about and being impressed by modern medicine's victories—the prevention of infantile paralysis, the spectacular successes in cardiac surgery, the hopeful reports from cancer research centers and the development of the artificial kidney. Each of us has wanted to protect not only her individual husband, but *all* physicians, against interference. It seems obvious, then, that we can best accomplish our objective by working together.

For many weeks I have pondered what I should say to you. There is much to say, and little time in which to say it. I should like to know each of you as a friend, to know your community and to hear of your problems. I have found no new way to tell you that membership in the Auxiliary is important. So until all doctors' wives in Iowa are members, I shall follow the example of the Baptist preacher who, on being asked to outline the method by which he kept his parishioners devoted to the ways of the Lord, said, "Well, first Ah tells 'em what Ah's goin' to tell 'em; then Ah tells 'em; and then Ah tells 'em what Ah told 'em."

Thus, "Ah tells" you again this year: be an informed member. I know that an informed member will be an active member. Your own education will be reward enough for your time and energy. There is stability in our organization because our purpose is steadfast: to preserve the ideals of American Medicine.

The word *informed* has a pleasant sound, but in using it I don't intend merely to please your ears. To be informed, one must be educated, and to become educated she must read, she must compare the things she has read, and she must evaluate. The president of the State University of Iowa, Dr. Virgil Hancher, told the mid-year graduating class: "It is the task of education to introduce you to that knowledge which is the common currency of enlightened society; to develop your powers of effective thought so that you will distinguish truth from falsehood, fact from fancy and principle from propaganda; to sharpen your sense of values so that you will recognize that truth and justice are not determined by decibels on an applause meter or by ballots in a ballot box; and to enable you, when you speak at all, to speak, as the dear old Quaker lady put it, 'with holy pertinence.' "

So, "Ah tells" you, be an informed member of your Auxiliary, and speak for us "with a holy pertinence." In this election year, study your candidates and what they offer, and vote with intelligence in November. Build good public relations for the medical profession in your community. Make a special effort this year to make friends and learn to know other doctors' wives. Make this year one of friendship and understanding.

With the capable officers you have elected and the qualified chairmen you will allow me to name, I shall endeavor to hold this Auxiliary to the high standards and ideals maintained by my predecessors, and I shall be mindful of their examples of tolerance, wisdom and tireless devotion. I now charge you with *your* responsibilities. We, your officers represent you, but *you* are the Auxiliary. This year's success will depend upon *your* loyalty and support.

Our State Medical Society and its entire office staff are our friends and partners. They have brought national recognition to Iowa by their courageous fight for freedom and integrity in the medical profession. Can we do less?

MRS. DEAN H. KING
President

COUNTY AUXILIARIES

Black Hawk

On Saturday, March 24, the Black Hawk County Auxiliary entertained the Future Nurses at the Waterloo Elks Club. This event has become an annual project, with all members participating. Tea was served to 200 future nurses.

Mrs. J. F. Gerken introduced the state officers present, and a girl representing each of the eight Future Nurses Clubs in the county gave an annual report on the projects and activities of her group. Miss Jane Lipovetz gave an impromptu talk on "What Nurse's Training Means to Me."

Black Hawk County is proud to have been awarded first prize for achievements and second prize for exhibits at the state meeting in Des Moines.

Wapello

The Auxiliary to the Wapello County Medical Society met on May 1 at the Ottumwa Country Club for a luncheon meeting. Mrs. Gregg Snyder presided in the absence of the president, Mrs. D. O. Bovenmyer, who was vacationing in the South.

Reports of the state meeting were heard, and plans were completed for the Career Day Tea to be held at the Ottumwa Hospital on May 11. Com-

mittees were appointed for the annual picnic to be held at the home of Dr. and Mrs. L. A. Taylor, in Ottumwa.

The Future Nurses Club of Ottumwa had their spring banquet at the Cornpicker Hotel on May 15. Clubs from surrounding towns were invited.



NEWS AND VIEWS

Mental Health Week this year probably was for most people no more than just another "week." Yet to those families that know the heartbreak and the tragic waste of mental illness, it meant a great deal more.

There are more people suffering some form of mental illness than are ill with all other major diseases combined—750,000 of them. One person in 12 will become mentally ill sometime during his life, and the sickness may strike him when he is five years old or when he is 80.

Since comparatively few mental patients become violent, many more of them can and should be cared for in general hospitals near their homes, where they can be in close contact with their families and when they can be spared the feeling of having been "shut away."

In Iowa the state mental institutions are controlled by untrained men, usually politicians appointed for reasons quite unrelated to their fitness. In consequence, the doctors who work in those institutions are subject to political domination. Is this the reason for Iowa's disgracefully benighted care of the mentally ill?

When politicians meddle in medicine, there can be only disaster, needless suffering and death.

There will be little improvement in this situation until the general public is aroused and demands enlightened care for the mentally ill. The medical profession and its Auxiliary must take the lead in an ever-expanding program of education in every community.

We can take the lead in seeking a solution to this problem.

* * * *

To the reporters over the state who have faithfully sent news items, your editor extends her thanks. You have made the work interesting. To the rest of you, I should like to say that if your activities have gone unnoticed, check with your press chairman to see to it that it doesn't happen again.

* * * *

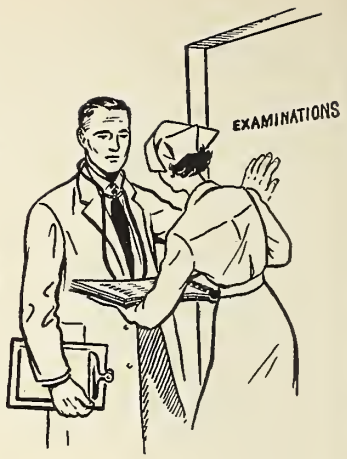
Congratulations to the 12 Iowa counties that are listed as members of the EXCLUSIVE CLUB. Last year there were 18, but perhaps all subscriptions sold for TODAY'S HEALTH haven't been reported as this is written.

The thirty-second annual convention of the Woman's Auxiliary to the AMA will be held at the Conrad Hilton Hotel, Chicago, June 11-15, 1956. The president of the Iowa Auxiliary, Mrs. C. H. Flynn, will serve as a member of the Courtesy Resolutions Committee and will deliver the Iowa State Medical Auxiliary Yearly Report at this meeting.



Mrs. Richard V. Corton, the newly-elected president of the Black Hawk County Woman's Auxiliary, is shown at the tea table with the presidents of five of the Future Nurses Clubs in her county. The Future Nurses were guests of the Auxiliary at the Elks Club, in Waterloo, on March 24.

THE DOCTOR'S BUSINESS



Facts About Air Conditioning

MILLARD K. MILLS
WATERLOO

At this time of the year, many a doctor gives serious thought to the possibility of air conditioning his offices. And well he should. Not only does a reasonably cool office contribute to the physical comfort and psychological well being of his patients, but it also increases the doctor's own efficiency and that of his staff.

But many physicians have questions about air conditioning that they should like to have answered. They want to know the size of unit that they should buy and the cost. We shall therefore undertake to give some general information on the subject. Because each set of rooms poses individual problems, each doctor must, however, consult an engineer before making a purchase of equipment.

CHOOSING AN ADEQUATE UNIT

Although temperature is of prime importance, comfort also depends upon the humidity. Even when the temperature stays high, a reduction in the moisture content of the air will contribute greatly toward the maintenance of comfort. Conversely, temperatures that are only moderately high can be unbearable if the humidity is excessive. Standard air contioners provide for dehumidification as well as for reduction of temperature.

Technical standards for rating air conditioning equipment may be confusing. Some manufacturers rate the capacities of their machines in horsepower, and others choose to express theirs in tons. But there is a one-for-one correspondence between the two. A "one horsepower" compressor can dispel 12,000 BTU per hour, and a "one ton" air conditioner (presumably equal in cooling effect to one ton of ice each 24 hours) likewise dispels 12,000 BTU per hour.

Several factors have a bearing upon the size of unit that is adequate in a particular situation: (1) the size and number of rooms; (2) exposure to direct rays of the sun; (3) the number of people normally in the suite; (4) the prevailing climate of the area; and (5) the number of heat-producing machines that are used in the space. Rooms with northern and eastern exposures are easier to keep cool than are those with unshaded western or southern exposures. Rooms on top floors beneath non-insulated roofs require more artificial cooling than do those located elsewhere.

The location of the air conditioner is also important. Heat is merely transferred outside the conditioned space, not destroyed. But since a change of air is very important to comfort, the equipment should be placed in or near windows, doors or air ducts where it can either bring in new air directly or exhaust stale air outside.

One should make sure of having a thermostat on the unit so that the occupants can choose the temperature that they desire. A built-in timer provides the added convenience of automatically turning the unit on and off. By that means, the office can be cooled before the working day begins, and there is no need for anyone's remembering to turn it off at closing time.

PRICES

Prices of equipment will naturally vary from city to city. However, the self-contained window unit can generally be obtained at a cost of from $188 to $588. Such a machine requires only electricity. Some console models also require water. The prices of those units will run from $400 up.

We recommend that you consult your local dealer about the possibility of air conditioning your office if you have not already done so. You, your staff and your patients will all benefit from it.

Mr. Mills is general manager of Professional Management.

IMPORTANT RESEARCH CONTRIBUTION

Searle Introduces:

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Investigations with Nilevar show that nitrogen, potassium and phosphorus are retained in ratios indicating protein anabolism. Nilevar is thus the first steroid which is primarily anabolic and which provides a practical means of meeting the numerous demands for protein synthesis.

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DOSAGE • The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the daily dose is 1 to 1.5 mg. per kilogram of body weight. Individual dosages depend on need and response to therapy. Nilevar is available in 10 mg. tablets. G. D. Searle & Co., Research in the Service of Medicine.

INDICATIONS:

Nilevar is indicated in the vast area of surgical, traumatic and disease states in which protein anabolism is desirable for hastening recovery. The specific indications are:

1. **Preparation for elective surgery.**
2. **Recovery from surgery.**
3. **Recovery from illness: pneumonia, poliomyelitis and the like.**
4. **Recovery from severe trauma or burns.**
5. **Nutritional care in wasting diseases such as carcinomatosis and tuberculosis.**
6. **Domiciliary care of decubitus ulcers.**
7. **Care of premature infants.**



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The Month in Washington

Washington, D. C.—As might have been expected, a presidential commission's report on veterans' pensions that also goes into the subject of nonservice connected medical benefits is stirring up another controversy.

The President's Commission on Veterans Pensions, headed by Gen. Omar Bradley, World War II leader and postwar Veterans Administrator, conducted a study covering more than a year in time and a wide range of subjects. It produced a 415-page report and a total of 70 recommendations.

The seven-man commission's report has this basic premise: military service in time of war or peace should be treated as discharging an obligation of citizenship and not of itself as a basis for future government benefits.

The commission made this additional point: ". . . under conditions of modern technology and warfare, the national defense might be served equally well by a civilian in a scientific laboratory or a war plant as by a uniformed serviceman—and in view of total war and atomic weapons, perhaps with greater personal hazard to the civilian. This further suggests that the special needs that veterans have because of military service should not be confused with the needs that all citizens have in common for such things as education, health services and economic security."

With this in mind, the commission proposes the gradual elimination of nonservice connected benefits and observes: "Their justification is weak and their basic philosophy is backward looking rather than constructive." Such benefits, it adds, should be limited to a minimum level and retained only as a reserve line for veterans who fail to qualify for basic protection under Old Age and Survivors Insurance (Social Security).

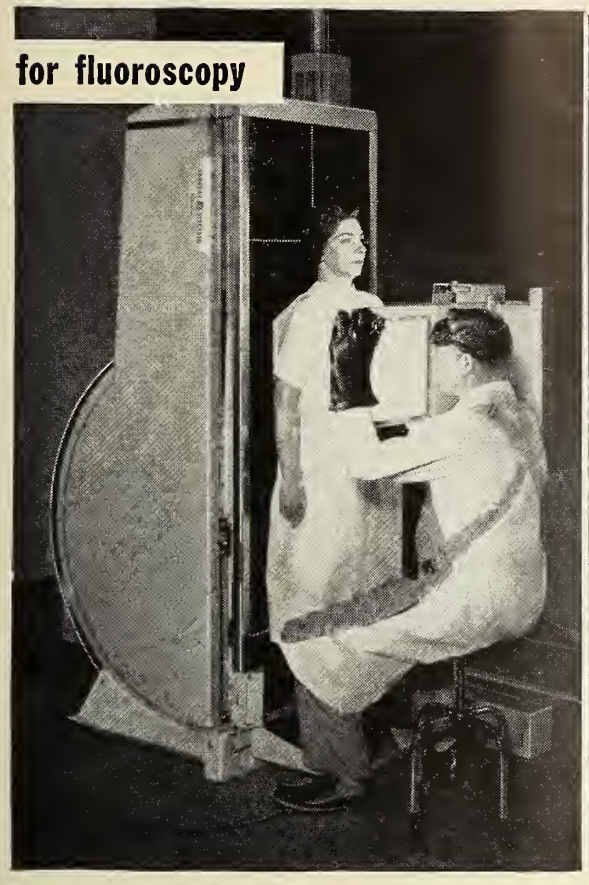
The commission then goes one step further by recommending an end to the present automatic "presumption of service-connection" procedure. Now, presumption of service connection is automatic and mandatory for certain diseases if the condition is diagnosed within a specific period of time following discharge. Instead, the commission would substitute medical determination for chronic and tropical diseases, psychoses, tuberculosis and multiple sclerosis, with each case decided on its own merits.

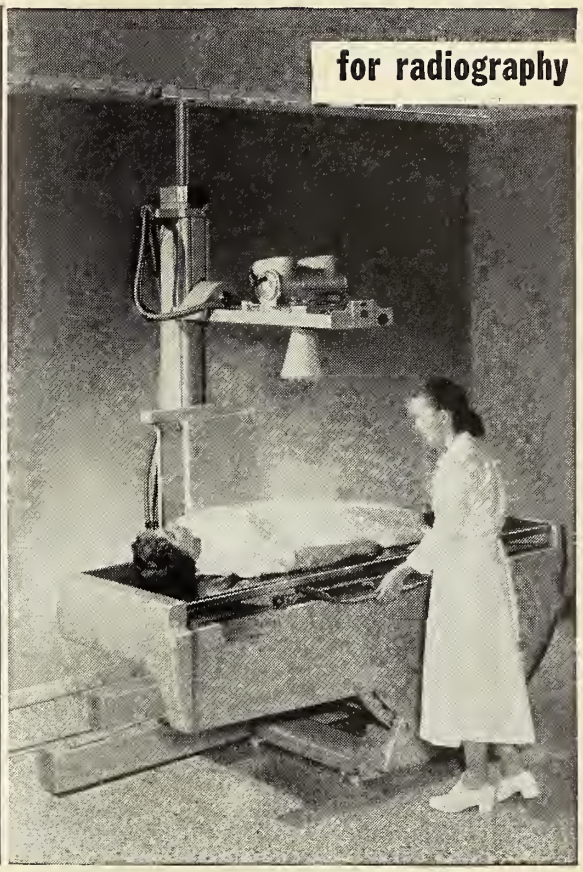
Other recommendations: (1) increased reliance on the OASI system for certain veterans' benefits, (2) prompt counseling of all veterans placed on compensation rolls as to VA and federal-state rehabilitation programs, and (3) requirement of reasonable medical or surgical treatment before payment of compensation.

The representatives of veterans groups who

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A message to the members of the

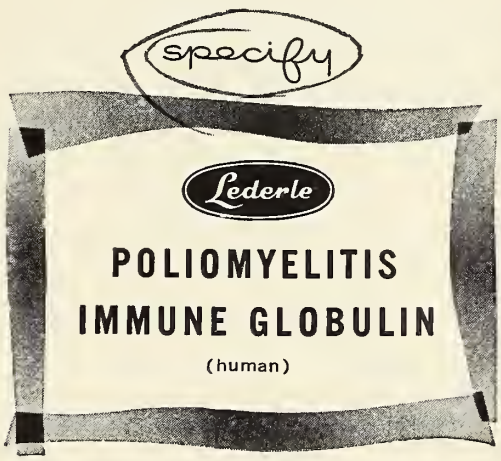
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were called before the House Veterans Affairs Committee to comment on the Bradley study complained that some of its proposals would be "extremely destructive" to certain aspects of veterans' compensation.

NOTES

Two committees of Congress, after long studies of problems of narcotics, barbiturate and amphetamine addiction, have come up with recommendations that the U. S. tighten penalties on narcotics peddling and smuggling, outlaw heroin and set up a central unit in the Federal Bureau of Narcotics to keep track of known addicts. The proposals were made by the Senate Judiciary committee and a House Ways and Means subcommittee.

The House committee also suggested a law for more stringent controls over barbiturates and amphetamines.

The Senate committee rejected the proposal backed by the New York Academy of Medicine for "clinics" where known addicts could go for regular doses of narcotics.

* * * *

U. S. Public Health Service is advising private physicians as well as health officers to increase their use of Salk poliomyelitis vaccine. Although supplies now lag behind demand, the expectation is that before the summer is out, the situation will be reversed. In line with this recommendation, PHS is urging that physicians use what supplies they have on hand immediately, depending on future production to take care of second and third shots.

* * * *

Because the President signed the military career incentive bill promptly, physicians in uniform received their pay raises starting May 1. The minimum boost (after two years' service) is $50 per month, the maximum (after 10 years) $150.

* * * *

Private-profit nursing homes, hospitals and some other medical facilities soon will have an opportunity to obtain U. S. loans from the Small Business Administration. The limit is $250,000 per project, the interest rate usually 6 per cent.

* * * *

If there was any question about it, the AFL-CIO as a joint organization favors national compulsory health insurance, as each group did before the merger. The AFL-CIO stand was taken officially for the unions by Nelson Cruikshank in testimony before the House Ways and Means Committee on a bill for increased payments for the medical care of public relief recipients.

TEACHING FILMS CAN BE BORROWED

Six new teaching films in anatomy are available for distribution from the Division of Professional Education of the National Foundation for Infantile Paralysis, 120 Broadway, New York City 5. All six are 16 mm. color-sound films produced by Dr. J. E. Markee, professor and chairman of the Department of Anatomy at Duke University. Dissections, animation and models are used in the demonstrations. The films are:

The Anatomy of the Hand—Part I—32 minutes. It demonstrates the structures on the volar surface of the hand which are superficial to the palmar spaces.

The Adrenal—Part III of the Autonomic Nervous System series—18 minutes. It illustrates those phases of development of the autonomic nervous system which are necessary to an understanding of its adult form and function. It also illustrates the local action of acetylcholine and its local inactivation by cholinesterase, and the transportation of epinephrine by the blood stream to end organs far distant from the adrenal.

The Bladder—Part IV of the Autonomic Nervous System series—13 minutes. This film illustrates the sympathetic, parasympathetic and somatic motor innervation of the bladder and its sphincters. It illustrates the viscerovisceral parasympathetic reflex arc concerned with the filling and emptying of the bladder, the sympathetic control of the blood vessels and the somatic motor control of the external sphincters.

The Eye—Part V of the Autonomic Nervous System series—21 minutes. This film illustrates the autonomic innervation of the iris, and ciliary muscle and the blood vessels of the eye as well as Horner's syndrome and third-nerve paralysis, and neural pathways involved in the pupillary light reflex and accommodation of the lens.

Glands of the Head—Part VI of the Autonomic Nervous System series—13 minutes. This film illustrates the autonomic innervation of the salivary and lacrimal glands. The relations of sphenopalatine, the submaxillary and otic ganglia to secretion of these glands is shown, as is the function of a salivary gland like the submaxillary which contains two types of secretory acini.

The Inguinal Canal and Scrotal Contents—25 minutes. This film illustrates the anatomy of the inguinal region and canal and the scrotal contents, and emphasizes the relationships pertinent to femoral and inguinal herniation.

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SURGERY—Surgical Technic, Two Weeks, July 23, August 6
Surgical Anatomy & Clinical Surgery, Two Weeks, September 24
Surgery of Colon & Rectum, One Week, September 17
General Surgery, Two Weeks, September 10
Thoracic Surgery, One Week, October 1
Esophageal Surgery, One Week, September 24
Breast & Thyroid Surgery, One Week, October 22
Fractures & Traumatic Surgery, Two Weeks, October 15

GYNECOLOGY & OBSTETRICS—Obstetrics & Gynecology, Three Weeks, October 22
Office & Operative Gynecology, Two Weeks, September 17
Vaginal Approach to Pelvic Surgery, One Week, September 10

MEDICINE—Electrocardiography & Heart Disease, Two-Week Basic Course, July 9
Internal Medicine, Two Weeks, September 24
Gastroscopy & Gastroenterology, Two Weeks, September 10
Gastroenterology, Two Weeks, October 22
Dermatology, Two Weeks, October 15

RADIOLOGY—Diagnostic X-Ray, Two Weeks, September 17
Clinical Uses of Radioisotopes, Two Weeks, October 8

UROLOGY—Two-Week Course, October 8
Cystoscopy, Ten Days, by appointment

Teaching Faculty—Attending Staff, Cook Co. Hospital

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*Moyer, J. H., and Hughes, W. M.: J. Chron. Dis. 2:678, 1955.

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PERSONALS

Dr. Loran E. Coppoc was elected head of the Wapello County Tumor Clinic early in May. The staff, in addition to Dr. Coppoc, consists of **Drs. K. R. Kingsbury, Sidney Brody, L. H. Prewitt, C. R. Phelps** and **S. F. Singer.** On the average, 20 other physicians, not members of the staff, attend the group's weekly meetings. There has been a noticeable increase during the past six months in the clinic's case load.

Dr. Rubin H. Flocks, professor of urology at the SUI College of Medicine, is to be a participant in roundtable discussions of "Choice of Therapy for Operable Cancer" and "Therapy for Disseminated Prostatic Cancer" on the first day of the National Cancer Conference, in Detroit June 4-6.

At the annual meeting of the American College of Physicians in Los Angeles, April 16-20, **Dr. P. M. Kersten,** of Fort Dodge, **Dr. C. F. Lowry,** of Council Bluffs and **Dr. E. O. Theilen,** of Iowa City, were made associates (junior members), and **Dr. Donald J. Schissel,** of Des Moines, and **Dr. Fred R. Sloan,** of Waterloo, were made fellows of the College.

Dr. L. A. Coffin, of Farmington, and **Dr. J. B. Priestley,** of Des Moines, were the Iowa physicians invited to attend a 12-state Regional Traffic Safety Conference, at the Sherman Hotel, Chicago, on May 23 and 24. The meeting, called by the President of the United States and attended by a score or more representatives of organizations in each of the states, was intended, according to the printed program, "to attract, stimulate, inform and assist persons who can create, finance and conduct state and local traffic safety organizations."

Dr. Nelle Schultz, of Humboldt, was elected president of the Iowa Branch of the American Medical Women's Association at a meeting held at the home of **Dr. Grace Doane,** in Des Moines, during the Annual Meeting of the Iowa State Medical Society.

Dr. Robert Stickler, of Des Moines, is the new president of the Iowa Academy of Surgery. **Dr. Robert T. Tidrick,** professor of surgery at SUI, was chosen vice-president, and **Dr. Louis T. Palumbo,** head of the Department of Surgery at the Des Moines VA Hospital, was chosen as secretary-treasurer.

The Iowa State Medical Society elected 18 physicians as Life Members during its recent Annual Meeting. Life Memberships are based on 50 years of medical practice and 30 years of Society membership. The recipients are **Drs. Marshall E. Dingman,** Urbana; **James R. Thompson,** Waterloo; **Joseph W. Hudek,** Garnavillo; **Leslie L. Smead,** Newton; **Harry E. Pfeiffer,** Rivera Beach, Florida, and Cedar Rapids; **Harry D. Jarvis,** Charlton; **Louis L. Bowie** and **R. E. Keyser,** both of Marshalltown; **Charles L. Jones,** Gilmore City; **Thomas A. Burcham, Sr., Robert L. Parker** and **Malcolm A. Royal,** Des Moines; **Albert E. Acher** and **James H. Bruce,** both of Fort Dodge; **Guy E. Barr,** Sioux City; **Roy M. Conmey,** Sergeant Bluff; **J. George Stolly,** Moville; **Dr. Frederick H. Rodemeyer,** Sheffield; and **Dr. Rudolph A. Vorpahl,** Cedar Rapids.

Dr. Norman Nelson, dean of the College of Medicine at SUI, was one of the medical educators, business leaders and government officials who were present in New York City on April 23 when the Frank H. Lahey Memorial Award for "outstanding service to medical education" was presented to **Dr. Abraham Flexner.**

Dr. Flexner became widely known in 1910 when a report of his, sponsored by the Carnegie Foundation for the Advancement of Teaching, charged that most of the medical schools in the United States and Canada should be closed, and that new schools should be built from the ground up. Iowa is reported to have been one of the first states to take up the challenge laid down by the Flexner report. Although some opposition was voiced in the Iowa General Assembly, the Rockefeller offer to match $2,500,000 of state money dollar for dollar was accepted. Since then the SUI College of Medicine has become the heart of a medical center that is acknowledged as one of the nation's best.

Dr. Gordon F. Harkness, a Davenport EENT specialist, is the author of an article on most doctors' current attitude toward tonsillectomies which appeared recently in the magazine THIS WEEK, which is distributed with the Sunday issues of many metropolitan newspapers.

Dr. and Mrs. George H. Keeney received letters of appreciation on April 16 from the PTA of their community, Mallard. Mrs. Keeney had been a leader in the establishment of the organization and had served as its president for 20 years. Dr. Keeney was honored for having served 39 consecutive years on the local school board and 20 years on the Palo Alto County Board of Education. In addition, during his three terms as a mem-

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DOCTORS EVERYWHERE NOW KNOW WHY

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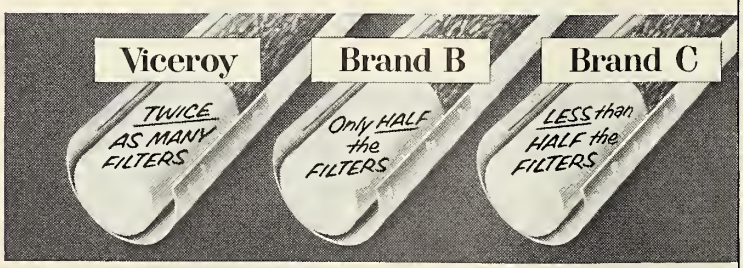


Professional men who have studied the microscopic analysis of the Viceroy filter now know why the Viceroy taste is smoother—never rough. Only Viceroy has 20,000 tiny filters in every tip—twice as many filters as the other two largest-selling filter brands. That is why Viceroys are smoother by far—never, never rough. That is why so many doctors now smoke and recommend Viceroys.

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ber of the Iowa House of Representatives, he sponsored school legislation designed to maintain the health and safety of pupils and supported other proposals for the benefit of the public schools. He has practiced medicine in the community for more than 40 years.

Three hundred friends gathered on Sunday, May 6, to honor **Dr. J. W. Hudek,** of Garnavillo, in commemoration of the fiftieth anniversary of his entry into medical practice.

Three Iowa physicians, **Drs. H. W. Rathe,** of Waverly, **Elmo E. Gamet,** of Lamoni, and **K. W. Myers,** of Sheldon, have been given ten-year certificates in recognition of their service as local advisers to selective service boards.

Dr. Frank Ober, a Burlington orthopedic surgeon, is quoted in the May 9 issue of his hometown paper, the HAWKEYE-GAZETTE, as having declared that Burlington and its environs needs a geriatric hospital. He went on to point out, the paper said, that matching federal funds could be secured for the construction of the requisite facilities.

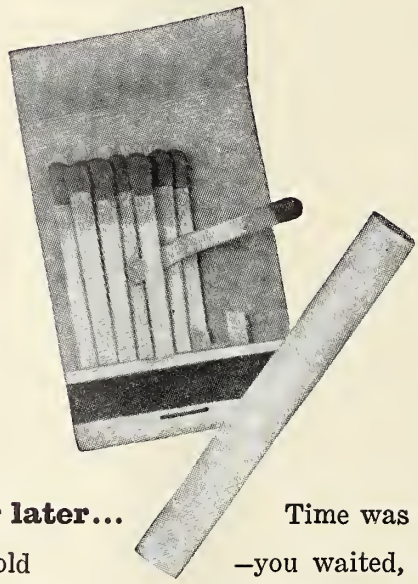
Friends of the late **Dr. T. W. Lichter,** of Edgewood, have contributed approximately $900 to purchase equipment for the Delaware County Hospital in his memory.

The Iowa Pediatric Society has elected **Dr. James E. Dyson,** of Des Moines, as its president, **Dr. Maryelda Rockwell,** of Clinton, as its vice-president, and **Dr. Ralph E. Dyson,** of Des Moines, as its secretary-treasurer.

Construction work was started May 2 on a clinic building in Lake Mills for **Dr. R. W. Hill.**

In the absence of **Dr. Frederick C. Armstrong,** who is a patient at the VA Hospital in Iowa City, **Dr. Terence Riley** has taken over his practice in Cascade. Dr. Riley, who was located at Cascade ten years ago, has since worked in a clinic at San Pedro, California, and had accepted a physician's post at the Iowa State Teachers College,





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in Cedar Falls, but then decided to avail himself of the opening at Cascade.

A ward at Broadlawns-Polk County Hospital, Des Moines, has been remodelled to provide an additional 23 beds for neuropsychiatric cases. **Dr. Ada R. Perel** is medical director of the psychiatric wing, and the resident staff includes a full-time psychologist, one worker who divides her time between psychology and social work, and a part-time psychiatric social worker. In addition to Dr. Perel, the other Des Moines psychiatrists devote parts of their attention to patients at Broadlawns.

Dr. Walter E. Foley, a Davenport surgeon, delivered the commencement address at the joint graduation exercises of St. Ambrose and Marycrest Colleges on Sunday, May 27.

At the annual meeting of the Iowa Society of Pathologists held in Des Moines on April 23, the following officers were elected: **Dr. F. C. Coleman,** Des Moines, President; **Dr. C. R. Phelps,** Ottumwa, vice-president; **Dr. Wallace Rindskopf,** Des Moines, secretary-treasurer; and **Dr. R. F. Birge,** Des Moines, council member. Their terms will begin on June 1.

The Maytag Company Foundation, Inc., on May 3, announced grants totaling approximately $4,000, the largest of which ($2,000) went to the National Foundation for Medical Education, which provides financial aid to the nation's medical schools.

Dr. and Mrs. Floyd Springer, of Des Moines, have returned home from a month's vacation at Phoenix, Arizona. Dr. Springer is a radiologist.

Dr. L. E. Harrington, of Danbury, took a two-weeks short course in obstetrics in Chicago early in May.

Physicians interested in physical medicine and rehabilitation met at the Iowa City VA Hospital and at the SUI College of Medicine on May 3 and 4. The sessions on the first day were primarily for the personnel of 15 VA hospitals in the North Central states, and the speakers included **Dr. Arthur Steindler,** professor emeritus of orthopedic surgery at SUI, **Drs. G. Keith Stillwell** and **K. Wakim,** of the Mayo Clinic, and **Dr. W. G. Kubicek,** of the University of Minnesota. **Dr. W. D. Paul,** professor of internal medicine at SUI, was in charge of arrangements. A meeting of the midwest section of the American Congress of Physical Medicine and Rehabilitation took up the second day. Dr. Paul is secretary of that organization.

Drs. Frank Ober and **Leo Wallace,** of Burlington, will occupy the first floor of a two-story building now under construction and scheduled for completion in August.

In mid-May, **Drs. D. A. Glomset, Herman J. Smith, Arthur G. Lueck** and **Charles H. Gutenkauf,** specialists in internal medicine, occupied

PAST PRESIDENTS' LUNCHEON



The physicians shown clearly in this picture are (from left to right) Drs. Robert Parker and Thomas Burcham, Sr., of Des Moines, Dr. B. T. Whitaker, of Boone, Dr. Gerald V. Caughlan, of Council Bluffs, and Dr. Donald C. Conzett, of Dubuque. Behind Dr. Parker are Dr. R. N. Larimer, of Sioux City, and Dr. R. D. Bernard, of Ames.

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their new office building at 2932 Ingersoll Avenue, in Des Moines.

Dr. Jack S. Crandall, of Marshalltown, is taking a leading part in a movement to establish a mental health clinic to serve Poweshiek, Jasper, Tama and Marshall counties. He is said to have estimated that $24,000 is the minimum that will be needed annually for clinic costs, exclusive of facilities. For the financing of the nine such clinics now operating in the state, 8 per cent is contributed by the Iowa Mental Health Authority; 40 per cent by community chests; 34 per cent by county boards of supervisors; and 6 per cent by patients in the form of fees.

Dr. Bernard I. Lewis, associate professor of internal medicine at SUI, is scheduled to speak on "The Hyperventilation Syndrome" at the scientific assembly of the Interstate Postgraduate Medical Association to be held in Cleveland, October 22-25, 1956.

Dr. Clyde Meffert took over as president of the Linn County Medical Society at a dinner meeting held at the Elmcrest Country Club, in Cedar Rapids, on May 2. **Dr. Philip Crew** was chosen president-elect, **Dr. Paul Orcutt** was named first vice-president, **Dr. Edward Kopecky,** secretary, and **Dr. Raymond Shank,** treasurer.

The Harrison County Medical Society was host to the county nurses' association members at dinner in Missouri Valley on May 21.

Dr. Robert Hardin, professor of internal medicine at SUI, has received a training grant from the Institute of Arthritis and Metabolic Diseases, National Institutes of Health, to finance his long-term follow-up of patients with diabetes. He is to be provided $800 per year for five years, starting July 1, 1956.

Dr. Lewis E. January, professor of internal medicine at SUI, has been elected president of the Iowa Clinical Medical Society for the year 1956-1957. **Dr. Harry Weinberg,** of Davenport, was named vice president, and **Dr. G. E. Montgomery,** of Ames, was named secretary-treasurer.

At the annual meeting of the Iowa Orthopedic Society in the Veterans Memorial Auditorium, Des Moines, on April 24, 1956, **Dr. Frank Ober,** of Burlington, was made president-elect; **Dr. J. M. Krigsten,** of Sioux City, succeeded **Dr. Carroll Adams,** of Mason City, as president; and **Dr. W. A. Baird,** of Ames, was reelected secretary-treasurer.

On April 21, 1956, **Dr. William B. Bean,** head of the Department of Internal Medicine at SUI, attended a meeting of the American Medical Association publications executives, in Chicago, representing the ARCHIVES OF INTERNAL MEDICINE.

Dr. Paul M. Seebohm, of the Department of Internal Medicine, and **Dr. Wayburn S. Jeter,** of the Department of Bacteriology at SUI, have been granted $3,500 by the National Tuberculosis Association so that they can continue their study of the passive transfer of allergic response.

Dr. Walter M. Kirkendall, chief of medicine at the Iowa City VA Hospital, addressed the Area Conference of the Veterans Administration in Minneapolis on April 3, on "Clearance of PAH, Inulin, Copper, Amino Acids and Hemoglobin in Patients with Hepatolenticular Degeneration (Wilson's Disease)."

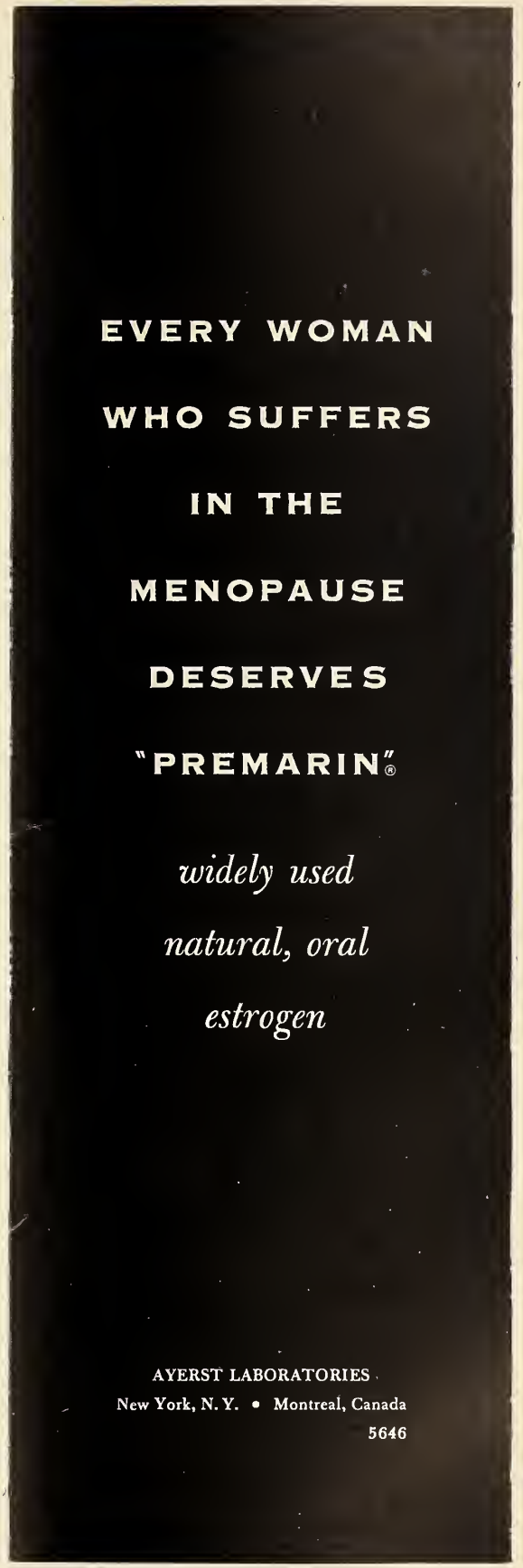
At the May 2 meeting of the Johnson County Medical Society, **Mr. George Worley,** a representative of the State Conservation Commission, showed moving pictures and spoke on "The State Parks of Iowa."

The Woodbury County Medical Society held a joint meeting with the Woodbury County Bar Association on the evening of May 24. The program was presented by the lawyers.

Dean Norman B. Nelson, of the College of Medicine at SUI, spoke on "Your College of Medicine" at the May 8 meeting of the Des Moines County Medical Society at the Burlington Golf Club.

Dr. Thomas A. Brucham, Sr., of Des Moines, a former president of the Iowa State Medical Society and also one of the founders and a past president of the American Radiological Society, **Dr. Lonnie A. Coffin,** of Farmington, the immediate past-president of the ISMS, and **Dr. George H. Keeney,** of Mallard, a former vice-president of the ISMS, were chosen to receive Distinguished Service Awards this spring by their *alma mater,* Drake University, and by the Drake National Alumni Association. Dr. Burcham's award was presented on Founders' Day, May 7, and the other two men are to receive theirs at the commencement exercises on June 2.

Dr. Burcham, a member of the University's Board of Trustees, is being honored for his leadership in radiology as well as for his loyalty to the school; Dr. Coffin is being recognized for his work as a family doctor and for his leadership in organized medicine; and Dr. Keeney is being honored for the service he has rendered the schools of his community and for his work in the governmental as well as in the medical field.



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1. Cronheim, G., and Toekes, I. M.: Comparison of Sedative Properties of Single Alkaloids of Rauwolfia and Their Mixtures, Meet. Am. Soc. Pharmacol. & Exper. Therap., Iowa City, Iowa, Sept. 5, 1955.

2. Moyer, J. H.; Dennis, E., and Ford, R.: Drug Therapy (Rauwolfia) of Hypertension. II. A Comparative Study of Different Extracts of Rauwolfia When Each Is Used Alone (Orally) for Therapy of Ambulatory Patients with Hypertension, A.M.A. Arch. Int. Med. *96*:530 (Oct.) 1955.

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LOS ANGELES

DEATHS

Dr. Ray Herbert Dean, 79, of Washington, Iowa, died on April 12. He had had a heart condition and had been an invalid for some time. He was a Life Member of the Iowa State Medical Society.

Dr. Henry Clay Hull, 81, who practiced in Washington, Iowa, for over 50 years, died at his home there on April 21, after three years of illness. He was a Life Member of the Iowa State Medical Society.

Dr. George Lee Prentice, 77, of Troy, died on April 22 after an illness of several weeks. He had practiced 56 years in various southeast Iowa communities and in several places outside the state.

Dr. William J. Barbour, 33, who had practiced at Shell Rock since May, 1955, died on May 8 at the Veterans Administration Hospital in Iowa City.

Dr. Walter Nelson Wright, 89, who had practiced medicine in Mahaska County for nearly 60 years, died in Oskaloosa on May 8. He was a Life Member of the Iowa State Medical Society.

Dr. Agnes Isabel Safley, 80, who practiced in Cedar Rapids until her retirement 12 years ago, died in a hospital there on May 3.

Dr. Fred F. Agnew, 86, an EENT specialist who practiced 50 years in Buchanan County before his retirement in 1952, died suddenly at the People's Hospital in Independence on April 18. He was a Life Member of the Iowa State Medical Society.

Dr. Ernest Marion Adams, 88, who practiced 54 years at Central City, died at his home there on April 21. He had recently been brought back in an ambulance plane from Florida, where he and his wife had spent the winter. He was a Life Member of the Iowa State Medical Society.

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(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
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(San Antonio, Texas) .....A.U.S.
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(Marine Corps Recruit Depot, San Diego,
Calif.) .....Lt.(j.g.), U.S.N.R.
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(Orlando, Florida) .....Capt., U.S.A.F.
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(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
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Geist, James H., Iowa City .....
Gleeson, J. J., Vail
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Goplerud, C. P., Iowa City
(U.S.A.H., Albuquerque, New Mexico) .....A.U.S.
Hach, Felix, Ankeny
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Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Hastings, R. A., Ottumwa
(U.S. Naval Hosp., Pensacola, Florida) .. Lt., U.S.N.
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Hodges, R. E., Iowa City
(Silver Spring, Maryland) .....Capt., A.U.S.
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(Navy Center, Omaha, Nebr.) .....U.S.N.
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(Seattle, Washington) .....Lt., USN
Powell, Robt. M., Iowa City
(U.S.A. Hosp., Ft. Hood, Texas) .....Capt., A.U.S.
Rainy, Robert L., Iowa City .....
Rodgers, G. H., Mt. Ayr
(Brooke Army Hosp., Ft. Sam Houston, Texas)
.....Lt. A.U.S.
Rogers, Edward A., Anamosa (U.S.P.H.S. Hospital, Seattle) .....
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(Phoenixville, Penna.) .....
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(Detroit, Michigan) .....1st. Lt., U.S.A.F.
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SYMBOLIC CEREMONY



Dr. Lonnie A. Coffin, of Farmington, retiring president of the Iowa State Medical Society, is shown handing the gavel to his successor in office, Dr. Wendell L. Downing, of LeMars, at the close of the 1956 Annual Meeting.

SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa

Thursday at 11:15 a.m.

"Superstition or Science"

June 7 ..... Nutrition Fallacies
June 14 ..... Quinine
June 21 ..... Electricity and Magnetism
June 28 ..... Cancer

WSUI—Iowa City, Iowa

Tuesday at 11:45 a.m.

"Sixteen—Growing Up"

June 5 ..... Your Place in the Family
June 12 ..... What's My Vocation?
June 19 ..... Food, Nutrition and Appearance
June 26 ..... Money

TELEVISION

WOI-TV—Ames, Iowa

Thursday at 10:00 p.m.

June 7 ..... Vacation Hazards
June 14 ..... Backache
June 21 ..... Summer Allergies
June 28 ..... Tuberculosis

KGLO-TV—Mason City, Iowa

Monday at 2:00 p.m.

June 4 ..... Feeding Problems
June 11 ..... Convulsions in Children
June 18 ..... The Mentally Retarded Child
June 25 ..... Trends in Family Rearing

KCRG-TV—Cedar Rapids, Iowa

Sunday at 12:00 noon

June 3 ..... Problems of Early Infancy
June 10 ..... Feeding Problems
June 17 ..... Convulsions in Children
June 24 ..... The Mentally Retarded Child

KTIV-TV—Sioux City, Iowa

Saturday at 3:30 p.m.

June 2 ..... Pregnancy
June 9 ..... Accidents and Poisons
June 16 ..... Problems of Early Infancy
June 23 ..... Feeding Problems
June 30 ..... Convulsions in Children

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1. Davidson, D. T., Jr.; Lombroso, C., & Markham, C. H.: *New England J. Med.* 253:173, 1955.
2. Zimmerman, F. T.: *New York J. Med.* 55:2338, 1955.



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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI JULY, 1956 No. 7

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Medicine in a Changing World

DAVID B. ALLMAN, M.D.

ATLANTIC CITY, NEW JERSEY

THE CHALLENGE OF LIFE, it seems to me, is *change*—change which is fraught with peril for those who cannot meet it, but is merely a prologue to new triumphs for those who are sufficiently adaptable and resilient to adjust to it.

There can be no growth without change, just as there can be no decay. There can be no standing still, either. Change is inseparable from life, and its reverberations seem palely to carry even beyond the frontiers of death. Thus we must acknowledge the constancy of change, confront each new change as it comes along, and bend our energies to meeting and besting it. That is our challenge today as members of society, and it is no less our challenge as members of the profession of medicine.

It is not, then, in the fact that changes have occurred and are occurring that our times are remarkable, for as the poet says,

> *Each age is a dream that is dying*
> *Or one that is coming to birth!*

But our times are remrakable—if not unique—for the extensiveness of the changes that have taken place and are taking place, and for the swiftness with which those changes are following one another.

Within a half century—a period of time to which many of us have been eye witnesses—such a multiplicity of changes have taken place as seems to outstrip all of the changes that came before. There is scarcely an aspect of life that has not been profoundly affected.

INNOVATIONS OF OUR TIMES

Consider the sphere of food alone. The fundamental processes of food raising, cultivation, preservation and preparation, whether the production of vegetables and fruits or of meats, have undergone radical changes based upon new scientific knowledge. Improvements have been made in plant feeding, crop rotation, irrigation and mechanization; in cattle feeding, transportation, butchering and packing; and in refrigerating, canning, cooking and serving. As the ordinary accommodations of our tables, we enjoy today a variety and excellence of viands such as were impossible luxuries or beyond men's wildest dreams 50 years ago.

Truly, there has been a happy conspiracy of improvement and progress. Properly basic to that progress and chiefly responsible for it have been scientific inventions and scientific production methods. We have utilized water, air, electricity, coal, fuel oils and natural and artificial gases to operate the countless new engines and mechanical wonders that add to our ease and comfort. Now we are well on the way toward the control and utilization of atomic engery!

Within the memory of living men, the gasoline internal-combustion engine, the turbine engine, the diesel, the turbo-jet and the jet have all added their power to the dreams of men, to make even the most fantastic and ambitious of our dreams come true. The automobile alone has made a contribution to the physical, social and economic growth of our country sufficient to make this age forever memorable. It has really made us, in a physical sense, the United States of America. For by the network of roads which it has necessitated, it has practically eliminated the distances which once isolated and insulated people, and has brought us all, physically at least, nearer as neighbors.

Railroads and airplanes have completed the conquest of distances, until today we live in a world of physical intimacy. The modes of travel have shrunk the severing wastelands and have bridged even the broadest oceans. This is change indeed, making us accessible to foe as to friend, and confronting us with new problems in consequence.

Turn where you may, the story is the same. There have been growth and improvement in every aspect of our material life. Incredible machines decrease man's industrial burdens, but by their production they so increase the national wealth as to afford the worker better standards of living and higher incomes, though progressively lightening his work load.

In his home the average citizen of moderate means today is served by machines more completely and efficiently than any person of wealth was hitherto served by domestic servants. Machines keep his home cool in summer and warm in winter; they warm his water for bathing and cool it for drinking; they cook meals, wash and dry dishes, launder clothes, give him the news of the day, and supply entertainment and instruction by both audible and visible means. Through electric eyes and closed-circuit radio nursery units, today's machines even mind the baby. About the only things machines don't do for us is beget and bear our children, and we are still too set in our ways—and pleased with them—to want them to perform those functions.

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Changes in the sphere of medical and surgical care and treatment have been likewise little short of miraculous. There was a time, not long ago, when the members of the medical profession in America and in the rest of the world stood in appalling helplessness before the powers of disease and death. The potent processes of infection and debilitation were little understood and ineffectually resisted. Indeed, the basic processes necessary for the maintenance of health were only hazily guessed at. Then, bit by bit, in an atmosphere of anguished hopes and earnest strivings, the balance of power shifted. Step by step, the science of medicine expanded; our knowledge of the true causes of disease conditions increased; and methods were discovered and technics evolved in every department of professional endeavor so that we might enter into the homes and lives of our fellow men with gifts of healing and of health.

The magnificent consequences are familiar to us all. No longer needs man creep through life in the oppressive and baleful shadows of disease and death. Now, with buoyant step, in the full sunshine of vigorous, protected health, he can stride along the road of life, free from fear and pain. Never before was he so free.

These are changes which medicine has brought about—good changes for which we can and should be thankful to man for his unselfish genius and industry, and to God for His loving providence.

Relatively few are the diseases that continue to defy us. The shock troops of science are vigorously assaulting those fortresses of disease that still hold out. If man were not by nature doomed to die, science might even aspire to an eternal triumph. As it is, the average human being's life span has so lengthened as to pose other problems, ones such as men have never been called upon to deal with before.

In view of all these accomplishments, one might expect that these would be halcyon days of honor and recognition for the men and women of medicine, and of widespread satisfaction to all. But to our sorrow, we know that such is not the case. Despite the immense benefits which the doctors of today can confer—benefits ranging far beyond the rosiest dreams of the doctors of other generations—the physician's place in society and in the hearts of his fellow men is less honored and secure than it was when he had fewer benefits to bestow. The reason for that paradox is that other changes have occurred and are taking place—changes socio-economic in character, changes which we must recognize and deal with for our own good and for the good of the society of our day.

OUR HERITAGE

Whether we realize it or not, we all entertain basic philosophic concepts which become the principles of action by which we live. For most of us, these concepts are not the results of our original thinking. We adopt them from more vigorously thoughtful men, ones who, by their natural abilities, are leaders of thought and of action. For good or evil, such men wield great influence over the destiny of a nation and its people. In the United States of America, we were fortunate that in the days of our beginnings and of our early growth we had high-souled and high-minded, articulate leaders who formulated for us the most wholesome and the most noble concepts and principles that have ever inspired a nation.

Our founding fathers helped us to realize that for the good of all, the rights of the individual in any free society must always be preserved inviolate against invasion. They led us to disapprove, and actively to resist as tyrannical, any government not based upon the consent of the governed. They made us understand that liberty is the most desirable state for man—enabling him to direct the course of his own life in the pursuit of his personal happiness. And, as a corollary to the concept of individual liberty, they developed an appreciation of the necessity of a spirit of independence and self-reliance. Then, by inculcating the concept of the brotherhood of men under the fatherhood of God, they insured this spirit of freedom and independence against deterioration into lawlessness and anarchy.

Love was the leaven which they employed to make certain that the searchings and seekings of vigorously free and independent people would not degenerate into a conflict of selfish desires, but would consolidate into a national strength and a national greatness exemplifying the tranquility of right order. They united our citizens in a dedicated bond of brotherhood and gave to us and to the world a new nation of unprecedented strength and unrivaled greatness.

Love of liberty, responsibility, self-reliance, industry and resourcefulness—these were the traits typical of American citizens. Because of them our country grew and prospered. No obstacle was too great, no barrier too broad for the zest of free men, determined by their own strength to achieve security for themselves and for their beloved country. No competition was too keen, no threat too formidable for men and women dedicated to seek and achieve a fuller, freer life. Nothing could impede the sturdy march of America and Americans over the road of freedom to the heights of accomplishment and success—nothing, that is, until the corrupt concepts of materialism tainted the minds, contaminated the hearts and enfeebled the spirits of men.

OUR FAULTS

It was not only in America that the philosophy of materialism made successful inroads. After World War I, which had made death, destruction and privation almost universally familiar, weary men and women were ready for concepts that substituted superficial pleasure for substantial happiness, proximate riches for ultimate wealth,

thrills for genuine satisfaction, sex for love, cleverness for wisdom, expediency for principle and selfishness for sacrifice. Soon, success came to be measured not in terms of what one had accomplished, but of how little one had to do and of how much one had managed to accumulate.

The essential drive of Americans remained, but now its character and direction had changed. No longer was it unselfish, moving outward from generous hearts and spirits determined to share their treasure. Now it had become selfish and narrowing, accepting evanescent material rewards at the cost of eternal spiritual values. In consequence, we learned the deep and bitter truth of Oliver Goldsmith's lines:

Ill fares the land to hastening ills a prey,
Where wealth accumulates and men decay.

The Depression made clear how much had changed. Some Americans, whose ancestors had spurned money for the freedom of living, wondered whether life were worth living, now that their money was gone. Others decided that the task of recovery was too much for them and sought means of bartering their freedom for security. But—thank God—not all so reacted! Some there were who learned that the things of material character which misfortune can sweep away are not essential to human life and happiness. Those people found that love and loyalty and justice and truth remain unaffected in adversity, and that in some instances they grow deeper and richer. Such people did not falter. Taking heart, they readdressed themselves to the task of making a good living, knowing as they had not known before that the making of a good living is definitely secondary in importance to the making of a good life.

The struggle between the philosophy of the material and the phiosophy of the spiritual ideal continues. Allegiances are still divided. Because our ranks are split, our strength is weak. Today, we are a people torn between two influences. One is the influence of the past, of our traditions and our lineage, moving us to exalt freedom, personal responsibility and individual initiative. The other is the influence of the present, an influence of opportunism moving us to get rather than to give, to prefer soft security to militant freedom, to want the laxness of personal irresponsibility, even when it means ceding to other agencies—especially to government—the responsibilities we should retain and discharge ourselves.

There is mounting evidence to show that we are in danger of becoming a weak and an effete people. We are manifesting alarming inclinations to sell our birthright for a mess of pottage. And the tragedy of it all is that deep down we retain the old undeniable and ineradicable appetites which our forefathers knew were natural to all men. In consequence, if we ultimately get the mess of pottage, we shall inevitably loathe it.

This is the changed and changing world which confronts us Americans today. Thus far, the changes have been insidious and gradual, but they have been indicative of a progressive weakening of our national character that could not be more ill-timed. A titan of tyranny is even now contending with us, and with all other free nations, for the dominance of the world. It typifies despotism and all that is contrary to our basic ideals and aspirations. It offers the irresponsibility of bondage for the responsibility of freedom. It exalts the rights of the state over the rights of the individual. It holds out material rewards or punishments as a substitute for spiritual satisfactions. Fear, pain, unrelenting oppressions and cruelties are its regular instruments of administration. It knows nothing of justice or charity. Thus, slavery today stands toe to toe with freedom. Now is the time, therefore, when freedom must find full and effective vigor, or accept the ignominy of defeat.

WE NEED A GOOD REVOLUTION

In the light of all these circumstances, it seems to me that what we Americans need most today is a new revolution—a *good* revolution! I use the term in its literal sense. When anything revolves, it pivots through a full circle to return to its starting point. We Americans need to return to our starting point—to our early vigors of idealism and dedication. There is work to be done of such magnitude that each must do his full and conscientious best if we are to have a decent chance to win and to survive.

In these times, every action of any citizen which further enfeebles him or impairs the strength of his nation is an act of treason. Selfishness, irresponsibility, indifference, opportunism, dishonesty, injustice and anything else that makes for diminished individual work or lessens our common cooperation is a blow to the heart of our country. We need a *good* revolution—a return to the true and lasting good as our fathers saw it and passed it on to us. As citizens and as doctors, we must do all in our power to bring that revolution about.

Like other Americans, the men and women of medicine have shown no immunity to the corruptions of the short-sighted materialism which grips the world. This is a time for all to reclaim the best of the past and to rededicate themselves to the best that the future can bring. By word and by action, we should strive individually to show the way—through unselfish service and high-souled dedication to our duties—back to the true character of the American citizen, which once was ours. The good that continues, we must acknowledge and advance. The evil that exists, we must dig out and destroy, if we aren't to permit it to destroy us.

The time calls for good doctors everywhere, and

for good citizens. Nothing less will do. Our problems are great. Our strength must therefore be great also!

Our forefathers are remembered and revered for the effectiveness of their resistance to the tyranny which confronted them in their times—the tyranny of kings.

May we be likewise remembered by those who follow after us for having had sufficient vision to recognize the two-fold tyranny of *our* times—the tyranny of soviet despotism that threatens us from without, and the tyranny of selfish materialism that gnaws upon us from within. May we be remembered not only because we had the vision to preceive the evil, but because we had the courage, the high valor, effectively to resist it!

Evaluation of Workmen's Compensation Cases

In 147 industrial compensation cases the evaluations reached by a neurosurgeon acting as an impartial medical examiner were compared with the dispositions made by the Industrial Accident Commission of California. There was complete or general agreement in 71 per cent of the cases, but pretty sharp disagreement in about 30 per cent. In general, the Industrial Accident Commission was more liberal than the neurosurgeon acting as impartial medical examiner.

Several comments may be made that may explain some discrepancies or failures of agreement. First, the Commission may properly be in possession of information properly not available to the medical examiner. Second, age, earning power, and life expectancy in relation to the degree of disability may be taken into account by the Commission. Perhaps it was not within the examiner's province to speculate on those factors.

Third, emotional response to the claimant and his condition is, in some instances, unavoidable. When one sees an unfortunate wretch, it is almost impossible not to "give him something" anyway, even though his condition is palpably not due to, or aggravated by, injury. Emotional factors enter in another way also. The personalities and attitudes of an applicant in some extreme cases must sway the examiner or the Commission or both, in spite of their efforts to be impartial.

THE FUNCTIONAL ELEMENT

Comments on those cases considered "functional" seem pertinent in connection with this review. The examiner in question, and most of his colleagues, use the word to describe a situation in which there is no real disturbance of function, but in which complaints originate, or are aggravated, or are prolonged by a state of mind—such as hysteria, neurosis, psychosis or malingering, whether because of a desire for money or simply a desire to avoid work, or for some more obscure reason.

Desire for gain is quite easily recognizable in malingerers. In another functional group, the desire for gain may not be apparent to the examiner, attorneys, referee or the patient himself. In such cases the claimant does not recover immediately, once a settlement is reached. In a review of the records, however, it was apparent, through termination proceedings, that recovery over a period of several months did follow, in long-standing situations, when satisfactory financial arrangements had been made.

The patient's attorneys are most likely to be misled in this regard, and are likely—sincerely and honestly, it seems—to make statements to the effect that "anyone can see that the woman is disabled; all you have to do is look at her." Unfortunately, it is not that simple. Characteristically these claimants start out by saying, "It's not money I want; I want to get well! No amount of money would pay for what I'm going through."

Some patients persevere in their functional position not because of a desire for gain, but in the hope that it finally will be proved to the world that they were badly injured and that they did and do have great suffering.

Resentment over some aspect of the patient's course after injury appears to be the commonest source of a functional state. Resentment, in turn, may be due to a number of factors, mainly treatment by the employer or management by the carrier.

Back injuries lend themselves readily to a neurotic or "functional" disability, and the services of an examiner are of great value in the determination of the question of whether or not the disability is of this character, and of how to handle it. Since early in its history, the Commission has approved settlements of this sort, on eminent medical authority to the effect that a neurosis or other psychological irregularity can be relieved upon a payment which satisfies the mind of the claimant.—Excerpted from "The Impartial Medical Examiner; a Neurosurgeon's Differences and Agreements with the Industrial Accident Commission," by Frederick A. Fender, M.D., with a discussion by Edward O. Allen. CALIF. MED., 84:318-324, (May) 1956.

Scientific Articles

Early Versus Late Ambulation in the Treatment of Cardiac Patients

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STRICT BED REST HAS evils that have been known for many years, yet today physicians often continue the ritual of advising it for a myriad of ills that smite their patients. Our very culture supports the notion that a man cannot be seriously ill and be up and about. He is *expected* to be in bed. After all, rest for a diseased body, or selective rest for any of its ailing parts, is a treatment that has stood the test of time, and recovery often has occurred after no other or more specific therapy. Rarely has anyone considered that many patients may have recovered *in spite of* enforced bed rest. Instead, if the patient obstinately refused to accept the recumbency that his physician or his family had advised, but recovered anyway, it was thought either that he had an unusually strong constitution or that he was just plain lucky.

The pendulum has begun to swing the other way, and few today question the advantage of early ambulation of surgical and obstetric patients, although it is hinted that this new view has been influenced as much by the shortage of health service manpower and the shortage of hospital beds as by scientific analysis.

GENERAL CONSIDERATIONS

It is not surprising that we have been slow to desert established practice in the management of cardiac disease. The mysteries surrounding the causes of most heart disease and the unpredictable course of many of its types have not encouraged boldness. It is a fact that rest diminishes cardiac load, and it is admitted that this diminution is desirable or even obligatory in the successful management of many cardiac problems. Nevertheless, many harmful sequelae of complete bed rest are recognized.[1] Among the more serious of them are pulmonary congestion and an increased susceptibility to infection, disturbances of urinary and bowel functions, and the encouragement of thromboembolic disease, emotional desperation, a negative nitrogen balance and osteoporosis. Certainly any one or all of those sequelae operate to defeat the purpose of rest for the heart, or to delay full recovery.

One author[2] has described these evils as follows: *"Look at a patient lying long in bed. What a pathetic picture he makes!—the blood clotting in his veins, the lime draining from his bones, the scybala stacking up in his colon, the flesh rotting from his seat, the urine leaking from his distended bladder, and the spirit evaporating from his soul."*

It seems wise today to redefine cardiac rest by raising certain logical questions. For example, does complete rest in bed provide optimal rest for the heart, or are postures other than recumbency superior? How long and to what extent should rest be enforced?

Levine[3, 4] was among the first forcefully to challenge the concept of strict bed rest in the treatment of heart disease, and to present evidence that the bed is not the ideal resting place for the patient with heart disease. Later, Coe[5] compared the cardiac work of patients in the recumbent position with that while they are sitting in a comfortable chair. In each patient, the calculated work was less in the latter posture, the mean

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reduction in the work of the heart being 23 per cent. Since then, there has been ample evidence presented that many patients with acute myocardial infarction can get along just as well or better if they are allowed to rest in a comfortable armchair, beginning a few days after control of shock and pain has been achieved.[3, 6, 7, 8]

Although it should be obvious, I should like to stress at this point that sitting is not to be confused with ambulation. Early ambulation is important, but sitting up is the first stage through which the patient must go, and we must be prompt in letting him do so if we are to achieve our goal of returning him to useful living as quickly as possible.

Optimal cardiac rest probably finds its greatest utility in the management of active rheumatic heart disease, congestive heart failure and acute myocardial infarction.

It has been accepted practice to immobilize patients with acute rheumatic heart disease until all measurable indices of activity have returned to normal. In the past, I feel sure, many patients have been confined to bed for unnecessarily long periods, pending the return to normal of an elevated erythrocyte sedimentation rate, for example. The common and often severe emotional problems of the rheumatic child may have their inception at that time, when in many instances he feels well, yet is strictly confined to bed. Chair rest, instead of bed rest, can allow for an earlier and much more varied rehabilitative program, and at the same time it can furnish protection for his heart.

It has been easy to accept the head-up position for cardiac rest, since many patients in congestive heart failure have orthopnea and couldn't lie flat anyway. Furthermore, the very nature of the altered cardiovascular hemodynamics in recumbency makes it sensible for us to advise elevation of the head. Even so, there has been a delay in our putting the patient's feet and legs down. Recumbency permits maximal peripheral venous return, thereby increasing blood volume, venous pressure and diastolic filling of the heart. These lead to an increase in the volume work of the heart. Add to this the fact that recumbency encourages the pooling of blood in the lungs, and it is small wonder that a failing heart is at a disadvantage. Sitting up takes advantage of the effect of gravity in pooling blood in dependent parts of the body. I am afraid we sometimes forget this, now that mercurial diuretics and sodium restriction have provided us some effective extra-cardiac means of controlling edema. Even so, optimal cardiac rest is just as important a part of therapy as it ever was.

The suggestion that patients with acute myocardial infarction might be better treated with quiet rest in a comfortable chair seems shocking at first. After all, four to six weeks of bed rest has been stressed almost ever since the time, more than 40 years ago, when it first became possible for us to make an antemortem diagnosis. It must be emphasized again that this new, radical advice does *not* imply ambulation. Instead, the patient is lifted or helped from bed to chair and back again. He is allowed also to use a bedside commode instead of a bedpan. These measures are not instituted immediately. Shock certainly, and pain, usually are controlled first. Ordinarily, patients are not taken out of bed until the second to the fourth day of illness. In any case, they are not forced to remain up until they are fatigued, but are encouraged to be up only if they feel better in a chair than at strict bed rest. Levine[3] says that most patients are up for only an hour or two during the first day of the therapy, and for increasing periods thereafter until, at the end of a week, they spend most of the day in the chair. They often sleep with the head slightly elevated. If necessary, oxygen may be administered by nasal catheter or mask, regardless of whether the patient is sitting up or lying down. It is obvious that there can be no fixed routine for all patients. A ritual of chair rest would be as wrong as a ritual of strict bed rest.

SEQUELAE OF MYOCARDIAL INFARCTION

With these as ground rules, let us consider what the effect of such therapy might be on the common complications and sequelae of acute myocardial infarction.

The severe pain and significant shock of acute myocardial infarction can be omitted. Obviously no one would wrongfully place a shocked patient in an upright posture, nor would anyone force patients to sit up even later, if symptoms of cerebral anoxia appeared when they did so. Acute left ventricular failure and congestive heart failure are common and serious complications. From what has already been said in regard to the pooling of blood outside the lungs, it should be obvious that the sitting posture might act prophylactically to some degree, and it certainly should be an important aspect of therapy if these complications develop. Disturbances in cardiac mechanism are frequent, and the serious ventricular arrhythmias are often the terminal event. There is no reliable information to suggest that the sitting posture increases the frequency of mechanism disturbances. It would be unwise for one to keep a patient upright if a significant tachycardia resulted. This rarely occurs,[6] but if it did, one could hardly conclude that optimal cardiac rest results from the sitting posture. Recumbency and thromboembolic disease long have been associated; and the hazard of thrombosis and embolism in acute myocardial infarction explains to a large extent the therapeutic use of anticoagulant drugs. The risk of peripheral venous thrombosis can be diminished by the sitting posture, by elastic support to the legs while the patient is up, and by massage and gentle, pas-

sive exercise of the lower extremities as early as possible in the course of the disease. Rupture of the ventricular wall or interventricular septum is a danger in patients with large myocardial infarcts, but no one has reported an increased incidence in patients who have been permitted to sit up. Theoretically, in fact, the likelihood of this complication should be less, for the optimal amount of cardiac rest is afforded by this posture.

If mortality rates and complications are not adversely affected, how about the sequelae? Here, too, there is nothing to suggest that these patients are more likely to suffer from angina pectoris, cardiac failure or aneurysms of the left ventricle than are those who have been treated by strict bed rest.[6] I think all would agree that anxiety is a frequent and oftentimes disabling sequel of myocardial infarction, and that the attitude of hopefulness which is encouraged by our permitting the patient to sit up early in the course of his disease should materially lessen it. There is, so far as I know, no information on the correlation between the sitting posture and the frequency of the shoulder-hand syndrome. Personally, I should expect it to be less, particularly if free motion of the arms is allowed as soon as the physician is satisfied that it is not harmful to the patient's overall progress.

I think it unnecessary to belabor the question of early versus late ambulation. The stage is set for ambulation from the beginning, if optimal cardiac rest has been afforded by the sitting posture, and if physical and psychological deterioration has been minimized. Once the period of prescribed rest has ended, there is less need for a prolonged period of rehabilitation and readjustment to the upright posture and safe activity.

The necessity for a period of enforced rest, varying from four to eight weeks, is undisputed. Small infarcts require four to five weeks for complete healing, and large ones eight weeks.[9] Vascularization of an infarct and the development of a collateral circulation begin almost immediately, but neither is complete until healing is far advanced. There seems to be a definite relationship between early activity and rupture of the heart. For example, Jetter and White[10] reported an incidence of 73 per cent in a group of mentally ill patients in whom, for one reason or another, acute myocardial infarction was not recognized, and in whom rest was therefore not enforced. On the other hand, this complication accounts for the deaths of no more than 10 per cent of all patients who die from acute myocardial infarction.[11] Rupture rarely occurs after the first three weeks.[9] Also, there seems little doubt that the development of an aneurysm of the left ventricle is enhanced by unwise activity before an infarct is firmly healed, and congestive heart failure, which otherwise might not appear, can be precipitated by undesirable early activity.

For these reasons and perhaps for others, activity should not be started for a minimum of three to four weeks after the occurrence of a significant acute myocardial infarct, even though it is a small one. Thereafter, the circumstances of the individual case rather than any rigid rule should determine the time for ambulation. To me, there is utility in attempting to classify patients as "good risks" and "poor risks" according to the criteria established by Russek and his associates.[12] That classification can serve as a guide to rest and ambulation as well as to the selection of those patients to be treated with anticoagulant drugs. Gradual ambulation should be started as soon as it is safe. There is nothing to be gained by a prolonged period of enforced rest after a myocardial infarct has healed. In fact, there is a suspicion today that tolerated activity is a further stimulus to the development of adequate collateral circulation. The recovered patient should be encouraged in moderate exercise.

CONCLUSIONS

The details for progressive steps toward full activity and rehabilitation are beyond the scope of this discussion, and they are individual matters anyway. Plans for activity should be laid within the first few days after acute myocardial infarction, and one should discard many of the older rituals which must have seemed to the patient that they were calculated to seal his doom. Whenever circumstances permit, it is proposed that optimal rest in the sitting position be substituted for strict bed rest; a bedside commode be substituted for a bedpan; an attitude of hopefulness be substituted for one of gloom; and the encouragement of early ambulation (as soon as is judged safe) be substituted for the enforcement of a long period of inactivity. Present knowledge justifies this approach. There will be all gradations of recovery, once the healing of the myocardial infarct is complete. Some patients will have no symptoms from normal activity, whereas others will be handicapped even at rest. In any case, here as in all other forms of *chronic* heart disease, there is little to suggest that any useful purpose is served by the doctor's restricting the activity of a patient much beyond the point of controlling symptoms.

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Results of Corneal Transplants

At the State University of Iowa

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THERE IS NO OTHER operation in ophthalmology in which the results of surgery can be so gratifying or so disappointing as corneal transplantation. When the transplanted cornea remains clear and transparent, when there are no vessels and when there have been no complications during or after surgery, patients frequently have 20/20 vision. In uncomplicated cases such as those, it is difficult even to find the scar in the cornea. However, when things have gone wrong during the operation or during convalescence, the results are extremely disappointing. The possible complications include loss of the lens and vitreous, incarceration of the iris, vascularization of the graft, clouding of the graft, severe iritis, secondary glaucoma and uncontrollable pain. Some of these may lead to enucleation. These are the extremes of the results of corneal transplantation.

This study covers the findings in 30 patients, in whom 40 corneal transplants were performed. A number of these transplants were done as eye-saving procedures. In this group, as in most other series of cases that have been reported, individuals with keratoconus have had the best chances of getting excellent results.

The first corneal transplant was performed in December, 1950, but very few other such operations were performed between then and the establishment of the Eye Bank in the early months of 1955. During 1954, a few eyes were obtained from local sources and from the Buffalo Eye Bank, in Buffalo, New York. In many instances, the use of an eye shipped such a distance resulted in a moderately opaque graft, even though it did not become vascularized. Two such patients are V.W. and R.F., both of whom were grafted on the same day with eyes from the Buffalo Eye Bank. The donor corneas were quite cloudy when they were transplanted, but over a period of time they have gradually cleared. When fresh eyes were used, for example R.F.'s right eye and L.K.'s left eye, the cornea of the graft remained clear and transparent, and it healed without accident. The corneal grafts were performed by different members of our permanent staff and by residents. The general technic for performing corneal grafts has been substantially uniform, except in that crisscross sutures were placed in the cornea in some instances, and in others direct sutures were used.

TRANSPLANTATION TECHNIC

The senior author of this report, Dr. Braley, has performed 22 of the grafts, and his technic is as follows. The usual local anesthesia is given, with akinesia and retrobulbar injection of unacaine or procaine. A bridle suture is placed under the superior rectus muscle. The recipient cornea is then lightly marked with a circular trephine which will just cover the defect in the cornea. Usually a trephine 6, 7 or 8 mm. in diameter is used. Double-arm silk sutures are then threaded at the limbus, below and above, to form a cross over the central portion of the cornea. Then the limbus, medial and lateral, is used with another double-armed suture to form a horizontal cross over the center of the cornea, as shown in Figure 1.

These sutures are then lifted upward and placed at the limbus, below and laterally. The same size trephine is then used to cut the donor cornea. So that the cut may be clean, the donor cornea is usually cut clear through. A suture is then placed in the anterior one-third of the corneal stroma, near the edge of the donor cornea. A solution of 2,000 units per cc. of penicillin and 5 mg. of streptomycin is used as drops on this donor cornea. Next, the trephine is made in the recipient cornea, and the diseased cornea is removed. The gauge of the trephine is set so that it will cut just through the depth of the recipient cornea. The trephine does not always cut a complete circle. A suture is then placed in the edge of this cornea, and the incision through the cornea is completed by means of curved scissors. The donor cornea is then placed in the defect, and the crisscross sutures are pulled snug. If there is any tendency for the cornea to bulge or to fit incorrectly, the crisscross sutures are pulled up snug and are tied. Four direct sutures are made between the

donor cornea and the recipient one, at ten, two, four and eight o'clock. Great care must be exercised in placing these sutures. Pilocarpine is instilled into the eye, before and after surgery, in an attempt to prevent incarceration and to keep the pupil as small as possible.

Both eyes are bandaged for the first 24 hours. At the end of that time, the unoperated eye having been left uncovered, the operated eye is examined for complications. If none are seen, then another drop of pilocarpine is instilled, provided that the pupil is larger than pinhead size. Frequently, it is unnecessary to use pilocarpine at this stage. The eye is dressed daily, and on the fifth day atropine is started so as to counteract any possible iritis which may occur. If there are no signs of iritis, no medication is used. The pupil is kept as widely dilated as possible, and at this time the patient is allowed to sit up in a chair and, with help, to go to the bathroom. Sutures are removed at the end of two weeks, and if there is any tendency for the graft to bulge, pressure is applied.

So far as the other parts of the procedure are concerned, the technic varies with the individual who performs the operation. Several of the surgeons used direct sutures, whereas others use corneal splints. There were 22 eyes in which only one corneal transplant was performed. Seven of them have remained clear without any complication. Fifteen of the 22 became opaque, or developed complications and subsequently became opaque. It is impossible to review each of the individual cases in detail, but a few examples can be so presented.

CASES

L. K., a 39-year-old white woman, had keratoconus in both eyes. The cone had broken, and during previous treatment it had been cauterized and pressure dressings had been applied to it. When the patient was first seen, the cornea was extremely thin over a scarred central area, and the patient's vision was so reduced that she was able to perceive no more than light, or possibly hand movements. This could be improved to approximately 4/60 through the use of pinholes. An 8 mm. corneal transplant was performed on April 4, 1955. The postoperative course was complicated by iritis, which was treated with intravenous typhoid. Because of previous experience, local cortisone was avoided. Postoperative iridocyclitis continued for approximately six weeks. The eye has remained quiet since that time, the graft is perfectly clear, and there is a fine white line of scar at the junction of the graft and the recipient cornea. The vision with a corrected lens is 6/6.

F. G., a 52-year-old white farmer, had a severe pneumococcic ulcer in the center of his cornea. A descemetocele developed, and the cornea ruptured. The iris became incarcerated in the wound. In spite of local therapy, the ulcer continued toward the periphery of the cornea, and on December 31, 1955, a 7 mm. full-thickness graft was done.

The entire ulcerated area in the center of the cornea was removed and was replaced with a clear cornea. Because of the incarceration, an iridectomy had to be performed. Postoperatively, the inflammation of the eye quieted, and the graft remained clear for two weeks. When the patient was seen at the end of four weeks, the graft was still clear, and the eye was quiet, but there was an anterior polar cataract extending into the lens. Six weeks later, a rather severe iridocyclitis developed. It seemed quite possible that there might be a foreign body in the lens extending through the iris below, just under the site of the previous corneal ulcer. Since this cataract was dense, a complete iridectomy was done below, and an extracapsular cataract extraction was performed. Since the performance of that operation, the graft has become almost entirely opaque and vascularized.

On the same day, an operation was performed on E. P., a 35-year-old man with a similar chronic central corneal ulcer that produced severe thickening of the central portion of the cornea, but no perforation. A 7 mm. graft was placed in the area that had been occupied by the ulcer. The patient's postoperative course was uneventful. There were no complications. The graft remained clear, and the vision in the eye that was operated upon is now 6/6, with an appropriate lens.

R. W., a 40-year-old physician, had a dendritic ulcer of the cornea. He was treated in the usual manner, and also was given cortisone and antibiotics. The eye remained inflamed, red and very irritable for several months. Finally, the central part of the cornea became ectatic, and a synechia developed posterior to the cornea. The cornea became completely vascularized. Many of the vessels were closed by means of diathermy cautery, and finally the eye became reasonably quiet. An 8 mm. corneal transplant was introduced into the center of the cornea, but the iris was tightly adherent to the scarred cornea. The iris had to be removed, with the corneal button.

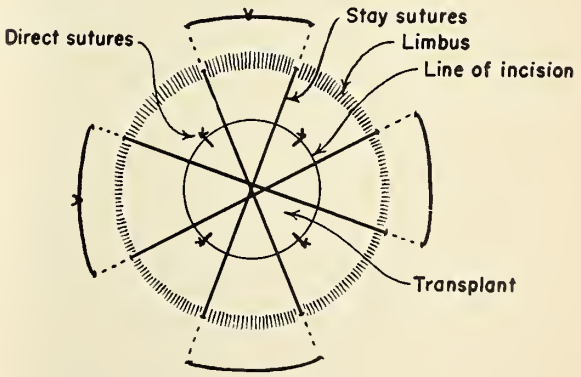


Figure 1

In spite of the possibility of later complications, the corneal transplant was completed in the usual manner. The patient's postoperative course was uneventful, except that the chamber did not remain full, and it was difficult to tell the chamber from the possible lens material. Six weeks after the corneal transplantation, the graft was still clear enough to permit one's seeing that there was a great amount of lens material in the anterior chamber. An effort was made to remove this lens material through a limbal incision, but the procedure induced a postoperative iridocyclitis and glaucoma that required the enucleation of the eye.

One other enucleation has been performed in this series. A. H., an 18-year-old girl, had a hydropthalmos and band keratopathy, and her vision was reduced to light perception. On January 27, 1951, a 6 mm. transplant was performed on her right eye. This girl had been blind for a number of years. For about two years after the transplant, she was able to get around without difficulty. In the middle of 1955, the eye became painful, and all vision was lost. Although it was impossible to record an accurate tension, the eye felt firm. On November 21, 1955, an enucleation was performed on this eye for the relief of pain.

Five patients with keratoconus have had corneal transplants. In all five, the corneal transplants have improved the visual acuity, but postoperative iridocyclitis has been a problem in all of them.

Four patients have had more than one corneal transplant each. One patient, T. J. had five corneal transplants between December 17, 1951, and December 14, 1954. His vision had been reduced to the perception of hand motions following an accident in which he suffered severe lye burns of both corneas. In each instance, the cornea would remain clear for a period of a few months, during which time he was able to see his way around and had a visual acuity of from 2/60 to 6/60. Each time, however, the cornea again became opaque. Following the last operation, he had very severe attacks of glaucoma that required cyclodialysis and removal of the lens. When last seen, in January, 1956, the tension was normal, and the cornea was opaque, but the vision was sufficient to permit his perceiving hand movements at a distance of about one foot.

In six of the 40 operations, there have been iris prolapses or incarceration. When iris prolapse occurs and requires repair, or when there is an incarceration that does not necessarily require repair, the result is usually opacity of the graft. Because incarceration of the iris complicates the performance of a second corneal graft, the incarceration should be released, if at all possible, before the second graft is attempted. In all the patients, ten grafts are clear and usable, and vision has been improved in most instances. Eighteen of the grafts have become opaque and are vascularized so that there is no improvement in vision. Two eyes have been enucleated.

COMMENT

The results of corneal transplantation may be extremely gratifying, or they may be very disappointing. In our series of 30 patients, the best results were obtained in patients with keratoconus. In each of them, vision was improved and the state of the cornea was considerably improved, so that there was a normal thick cornea present over the center, without danger of perforation of the cone. I feel that most cases of keratoconus, in which the cornea has become thin at the center or shows some signs of scarring with splits in Descemet's membrane, should have the benefit of a corneal transplant. Although conservative measures may prevent the rupture of the cornea, corneal transplant is not only likely to restore good visual acuity, but will certainly help prevent late complications of this severe disease.

The results of corneal transplants as therapy for perforated corneal ulcers, descemetoceles and incurable corneal ulcers are varied. Results are much better if the transplant can be performed before the cornea perforates. If the transplant must be performed after the perforation, glaucoma is likely to ensue. The results of this small series compare with those reported by Castroviejo,[1] Thomas[2] and others. Many of the postoperative complications can be avoided by means of careful surgery and excellent cooperation on the part of the patient. During the postoperative period, all the grafts have healed in place, and very few eyes have been lost because of the corneal transplants. We feel that in both instances where eyes were enucleated, the eyes would undoubtedly have been lost, regardless of whether or not a corneal transplant was done. There is always the chance that a transplant may be successful and may restore a useful amount of vision to the patient. The Eye Bank has given us a better source of material, because the corneas are fresh and are much more likely to transplant satisfactorily.

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2. Thomas, C. I.: The Cornea. Springfield, Ill., Charles C Thomas, 1955.

AMA CLOSES PRINTING PLANT

The issue for June 30, 1956, was the last number of JAMA produced in the AMA's printing plant at 535 North Dearborn Street, Chicago. Beginning with the first July issue, JAMA, together with the various specialty journals that the AMA publishes, will be printed by the McCall Corporation, in Dayton, Ohio, which has for some time been printing TODAY'S HEALTH.

The AMA headquarters building is no longer big enough to house both the printing plant and the Association's many other activities. Besides, the printing equipment is out of date and would need replacing if the Association were to continue doing its own printing.

New Surgical Approach to the Relief of Angina Pectoris

LOUIS T. PALUMBO, M.D.

DES MOINES

FOR A NUMBER OF YEARS, we have been dissatisfied with the surgical approaches and technics available for the sympathetic denervation of the heart, coronary vessels and upper extremity. All of them have posed many problems, not all of which could be resolved. Inadequate exposure, for example, frequently permitted no more than incomplete and limited sympathetic resections. Also, the hazardous and difficult posterior-thoracic approach frequently was followed by pleural, pulmonary and wound complications. Moreover, in addition to the increased morbidity and mortality, the technic employed was not a certain means of providing a complete and permanent sympathetic denervation of the organs and structures outlined above.

Another point of significance was the positioning of the patient upon the operating table. From the standpoint of administration of anesthetics and because of the undesirable physiologic reactions, the face-down position is hazardous, particularly for cardiac patients.

All of these difficulties have been overcome and some marked benefits have been attained by a new surgical approach that I shall presently describe at length.

In the past, sympathetic denervation of the heart and the associated coronary vessels was only partially successful because of the incompleteness of the sympathetic resection. The surgical approach limited the scope of resection, and besides, we didn't have a complete knowledge of the sympathetic pathways to the heart, particularly the visceral afferent (pain) pathways, with the result that our limited resections didn't include all of them. In addition, the former surgical technics often included resection of the stellate ganglion, either completely or partially, and this resulted in a Horner's syndrome, an unsightly sequela.

As a result of our new surgical approach, a Horner's syndrome can be avoided, even though a portion of the stellate ganglion is removed. That approach introduces a new concept concerning the pupillociliary sympathetic pathways which will be elaborated upon later. And this method of sympathetic denervation is indicated not only in angina pectoris, but in a great variety of other diseases and conditions, as can be seen from the following table.

Dr. Palumbo is chief of the Department of Surgery at the Veterans Administration Center in Des Moines.

TABLE 1

INDICATIONS FOR UPPER DORSAL SYMPATHECTOMY

Angina pectoris—Coronary heart disease
Peripheral arteriosclerosis
Raynaud's disease—Acrocyanosis
Buerger's disease—Scleroderma
Causalgia—Sudek's atrophy
Frostbite—Chilblains
Shoulder-hand syndrome—Hyperhidrosis
Paroxysmal tachycardia—Carotid sinus syndrome
Thrombosis of major vessels
Arterio-venous fistula and aneurysm
Phantom limb—Erythromelalgia

PURPOSE

The relief of severe angina pectoris and the increase of blood supply to the myocardium of patients with coronary insufficiency and/or thrombosis has been the ultimate desire of many surgeons. In the past, several technics have been developed, and some are now in use. Those currently advocated are (1) production of an adhesive pericarditis by abrasive materials; (2) a transplantation and implantation of the internal mammary artery into the myocardium; and (3) a shunting procedure of a vascular graft between the aortic arch and the coronary sinus. Briefly, these methods require a careful selection of patients; they carry a morbidity and mortality which are considered too high; and they are inadequate to accomplish the desired effects in a fair proportion of patients. These effects are, namely, relief of the disabling cardiac pain and the provision of an adequate increase in the coronary circulation, particularly of the vast coronary bed and intercoronary communication areas.

The most disabling and fearful aspect of this disease is severe pain, and any procedure which will bring relief from it will rehabilitate the patient. The elimination of all of the pain pathways to the heart is now possible by a more adequate resection of the upper dorsal sympathetics. With the relief of pain and release of the associated vasospasm in the coronary vascular system, including particularly the vast vascular bed, the patient is free to resume an active and productive life, for the resultant improvement in coronary circulation increases cardiac function and output. Yet, although it removes the pain pathways from the heart, the technic does not completely remove the danger signal which comes into play when the patient increases his activities beyond the safe range of cardiac function. He will experience a

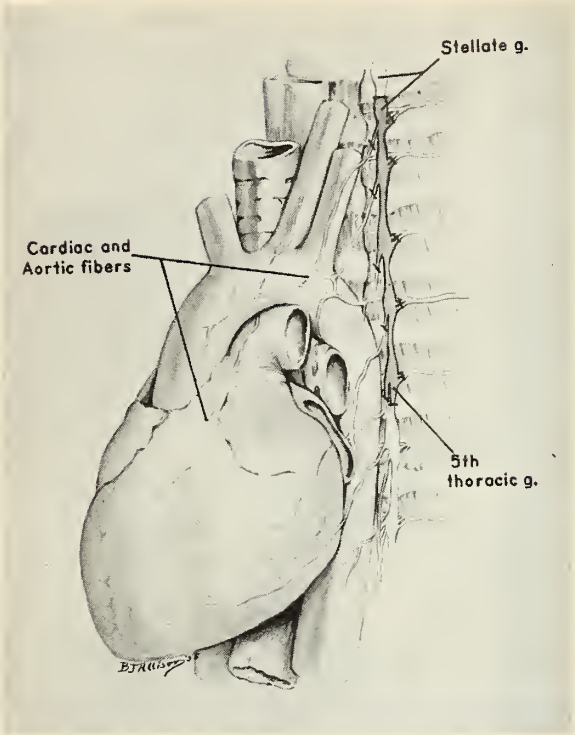


Figure 1A. Relational anatomy of the heart, great vessels, and the sympathetic chain, ganglia, rami and associated branches, as seen in the left thoracic exposure. The darkening of an area of the sympathetic chain indicates the portion which is removed, and the short black bars indicate the sites where division is accomplished. (Figures 1A and 1B, 3, 4 and 5 are reprints of illustrations that accompanied the author's paper "Anterior Transthoracic Approach for Upper Thoracic Sympathectomy," in the AMA ARCHIVES OF SURGERY, 72:659-666, (Apr.) 1956. Grateful acknowledgment is made to the publishers of the periodical.)

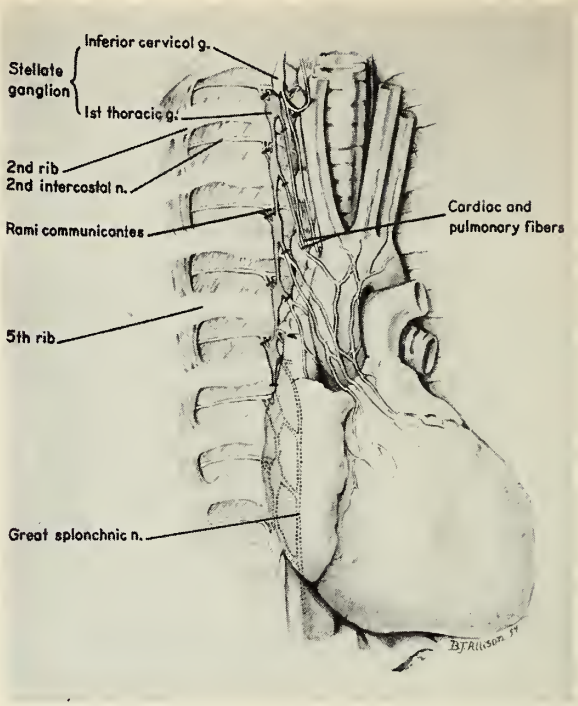


Figure 1B. The same as 1A, seen from a right thoracic exposure.

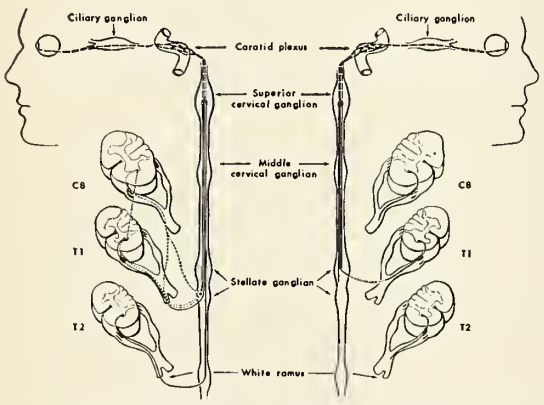


Figure 2. Pupillo-ciliary pathways as recorded in current literature and in texts are shown on the left side, with preganglionic neurones arising from the eighth cervical, and first and/or second thoracic levels of the cord. They pass via the first and second rami to enter the first dorsal ganglion.

The drawing on the right shows these pathways as our studies have indicated them to be. We postulate that the origin from the spinal cord is as recorded. However, these fibers leave the ventral roots and do not pass via the rami; they enter the *upper portion* of the stellate ganglion via a separate paravertebral pathway.

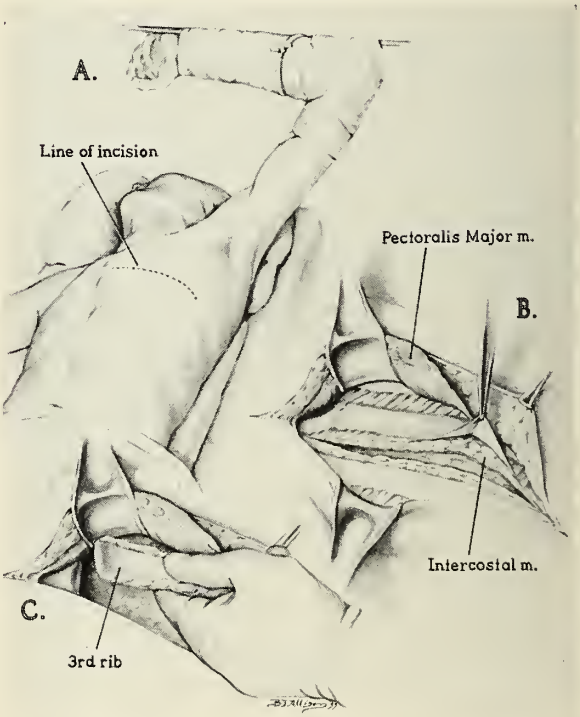


Figure 3A. Position of patient on operating table. The dotted line represents the location of the skin incision below the nipple.

B. Division of the pectoralis major and intercostal muscles in the third intercostal space. The parietal pleura is also divided in the same space.

C. The costal cartilage of the third rib anteriorly is divided vertically by scalpel to increase the wound exposure.

substernal oppression and some difficulty in breathing when he overexerts himself.

In many instances following proper denervation, the electrocardiographic tracings will show favorable changes. Those individuals who were accustomed to take 20 to 40 nitroglycerin tablets daily, those who were on digitalis and/or those who were almost addicted to some form of narcotics no longer require their respective medications following a properly performed sympathectomy by this technic.

ANATOMY

The coronary sympathetic vascular and pain pathways are derived from the first to the fifth dorsal segments of the spinal cord. They pass as preganglionic neurons via the rami communicantes at these levels to enter the sympathetic chain at their respective levels. Some synapse at these points with postganglionic neurons. These then leave the ganglion at each level on the medial side to pass to the heart and great vessels. Many of the preganglionic neurons from these five thoracic levels ascend in the upper dorsal sympathetic chain to synapse with the postganglionic neurons at the inferior, middle and superior cervical ganglia. From these ganglia, the superior, middle and inferior cardiac postganglionic neurons pass downward in the neck, medial to the chain, to supply the heart and great vessels (Figures 1A and 1B).

The sympathetic pathways to the muscles of the iris concerned with pupillary action arise in the cell bodies of the preganglionic neurons in the eighth cervical and the first and second thoracic (dorsal) levels of the spinal cord. The greatest number are at the first thoracic level. These preganglionic neurons, according to the literature, leave the spinal cord via the ventral roots of the first and second thoracic nerves and enter the sympathetic chain at these levels via the rami communicantes. They pass cephalad through the inferior cervical or stellate ganglion (a fusion of the first thoracic with the inferior cervical ganglion) to synapse with the postganglionic neurons located in the superior cervical ganglion. These latter fibers then pass via the carotid vessels or nasociliary nerves to the ciliary muscles, which control pupillary action. Stimulation of these fibers produces a dilatation of the pupil, whereas paralysis of these pathways results in a constricted (miotic) pupil, drooping of the upper eyelid and enophthalmos (Horner's syndrome).

SURGICAL PRODUCTION OF HORNER'S SYNDROME

Accordingly, if the sympathetic pathways as outlined above are interrupted at any point from their origin in the ventral roots of the eighth cervical, and first and second thoracic nerves to their final point of innervation, then a Horner's syndrome occurs. Therefore, in the performance of

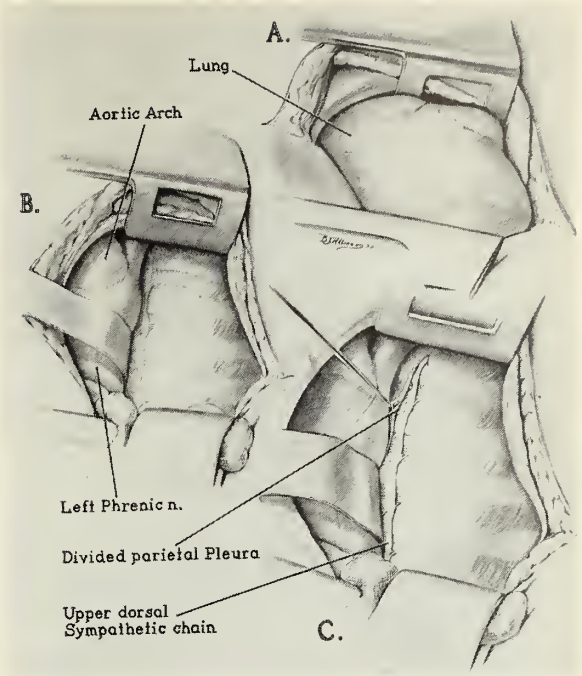


Figure 4A. General exposure obtained after insertion of self-retaining chest retractor.

B. Special lung and cardiac retractors in place, revealing the upper posterior wall of the left thorax. The sympathetic chain and associated ganglia are readily seen beneath the posterior parietal pleura.

C. The parietal pleura has been divided vertically over the sympathetic chain from the apex of the thorax to a point below the fifth rib. The medial branches, the ganglia and the associated rami communicantes are easily visualized. Special long-handled hooks used to pick up the pleura facilitate division of this structure.

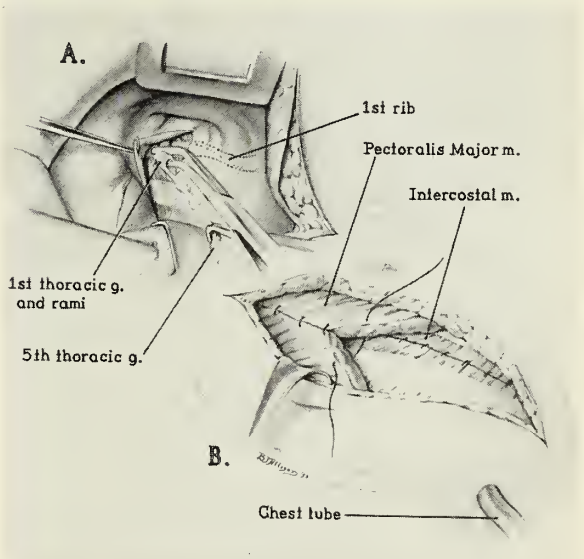


Figure 5A. The left upper dorsal sympathetic chain and five associated ganglia have been dissected free. The dissection of the stellate ganglion is carried just cephalad to the first dorsal ramus communicans, where it is transected by means of special right-angle scissors.

B. The intercostal and pectoralis major muscles are separately sutured with interrupted 00 or 000 silk sutures. The intercostal chest tube is placed through a separate anterior stab wound, one or two interspaces below the intercostal incision.



Figure 6A. Anterior view reveals typical left unilateral loss of sweating of the head, neck, thorax and upper extremity. The light areas represent loss of sweating by Miner's starch iodine technic.

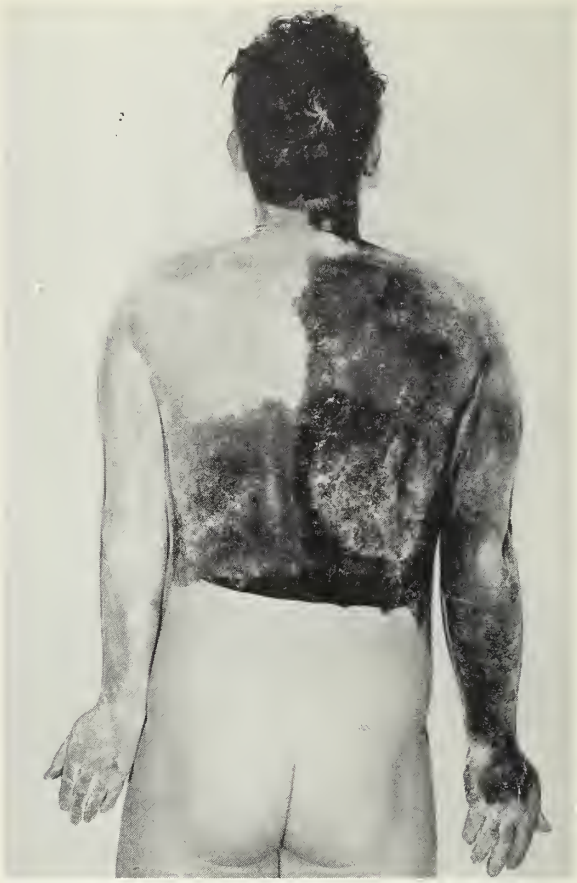


Figure 6B. Posterior view. Normal left unilateral loss of sweating.

an upper dorsal sympathectomy in which the stellate ganglion, the first dorsal ganglion and/or the upper dorsal rami are divided or resected, a Horner's syndrome should occur. If only the rami to the first and second thoracic nerves and/or the first dorsal ganglion are resected, then a Horner's syndrome should develop, according to the data previously recorded in texts and in the literature.

Contrarily, our experience has shown that a Horner's syndrome does *not* occur if the rami from the first and second thoracic nerves and the upper dorsal ganglia, including the first (lower one-third of the stellate ganglion), are divided and resected. Therefore, from this clinical evidence in our series, using our technic, we must assume that the pupillo-ciliary sympathetic pathways do *not* traverse the first ramus communicans to enter the first dorsal ganglion (lower part of the stellate ganglion) as the authorities in this field have said, but apparently leave the ventral roots of the eighth cervical and first and/or second thoracic nerves, and pass via a separate paravertebral pathway to gain entrance to the upper aspect of the stellate ganglion (Figure 2).

If our dissection is carried above the first ramus to include a more extensive mobilization of the stellate ganglion, a Horner's syndrome will occur (Figure 2). This is corroborating evidence that these pathways do not enter at the first dorsal ganglionic level, but at a higher one in the stellate ganglion (Figure 2).

SURGICAL TECHNIC

The patient is placed on the operating table as shown in Figure 3A. Endotracheal anesthesia is required. The skin incision is made at the level of the third intercostal space anteriorly on the left side, from the parasternal line to the left anterior axillary line (Figure 3A). It is deepened to include the superficial fascia, and then carried between the third and fourth ribs, dividing the pectoralis major and intercostal muscles and pleura.

The cartilage of the third rib is divided anteriorly to increase the size of the thoracotomy wound (Figure 3C). The upper portion of the lung or lobe is deflated, and by means of special lung retractors, the posterior upper portion of the chest is easily and readily visualized. By means of special long hooks, the sympathetic chain is picked up from the chest wall after division of the parietal pleura, as shown in Figures 4B and 4C. By means of a special dissector and scissors, the sym-

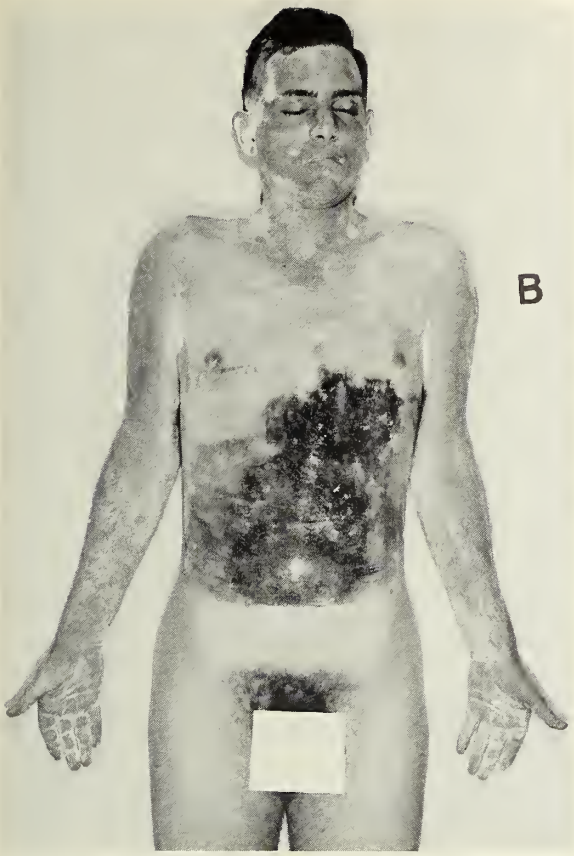


Figure 7A. Typical complete loss of sweating bilaterally of head, neck, shoulders, chest and upper extremities, following upper dorsal sympathectomy. Anterior view. Healed incisions are visible bilaterally below nipples.

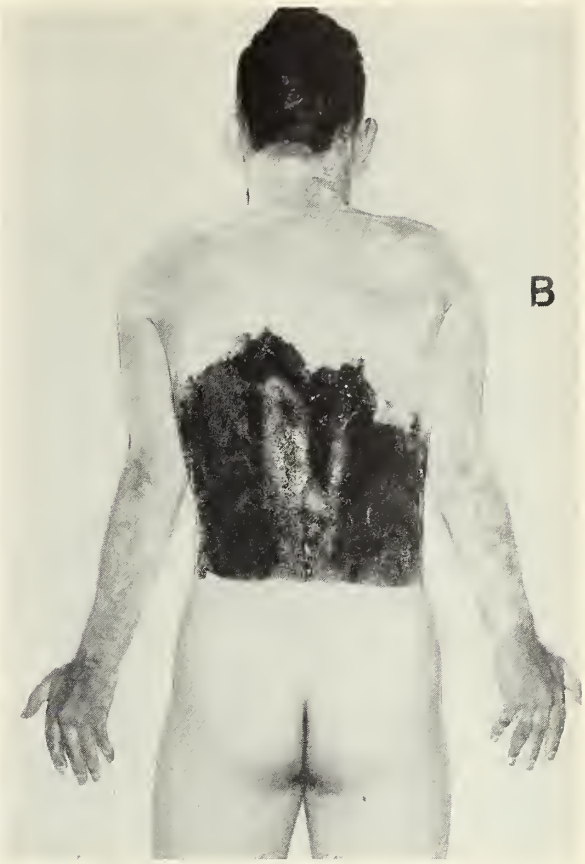


Figure 7B. Typical complete loss of sweating. Posterior view.

pathetic chain and associated ganglia from the fifth dorsal level up to the first are carefully dissected free from the surrounding tissues. The rami and the medial branches at each level are divided.

As the surgeon approaches the upper dorsal area, he must dissect carefully and meticulously if he is to avoid overmobilization or too high a dissection of the stellate ganglion. If only the first dorsal ganglion is exposed and the first ramus is dissected free, and if the ramus is divided at this level and the stellate ganglion is transected immediately cephalad to the first ramus, one can avoid damage to the pupillo-ciliary pathways, and a Horner's syndrome will not follow. The dissection and division at this critical level is portrayed in Figures 5A and 5B.

The wound closure is accomplished by interrupted 00 or 000 black silk sutures in the muscle layers, and 0000 and 000 in the superficial fascia and skin layers, respectively. Prior to this, a chest tube is placed through a stab wound in an intercostal space below the incision (Figure 5B). The lung is reexpanded under direct vision during the closure of the wound. The chest tube is connected to an airtight underwater suction-bottle apparatus. This tube is removed from the chest after 48 hours, if no intrapleural complications have developed. The patient is ambulated on the first postoperative day.

Generally, the left dorsal sympathectomy is performed first. If the patient has complete or almost complete relief, the right sympathectomy is not performed. In a high percentage of patients, a left sympathectomy is all that is required.

RESULTS

With this type of permanent sympathetic denervation, relief of angina and improvement in cardiac function can be expected in a very high percentage of patients. In many cases there is a dramatic overall improvement, and the index of rehabilitation is high. Also, those patients with a hand-shoulder syndrome will be relieved of their distress, and there will be a consequent improvement in the functional use of the extremity.

Permanent loss of sweating of the head, neck, upper extremity and chest occurs following this type of sympathectomy. The typical pattern of loss is shown in Figures 6A, 6B, 7A and 7B. Variations may occur, and occasionally loss of sweating may occur on the side opposite that of the sympathectomy. Such a phenomenon may be due to cross-innervation (Figures 8A and 8B).

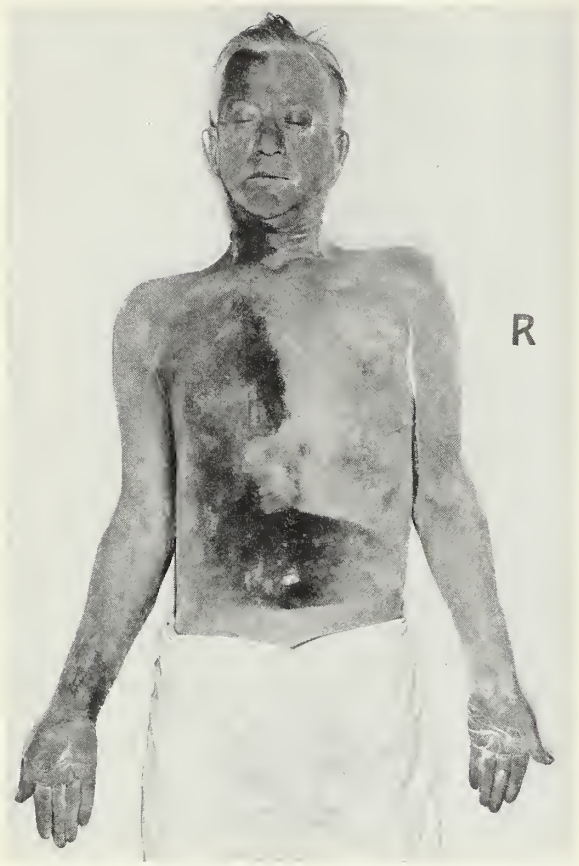


Figure 8A. Typical complete loss of sweating of left side of head, neck, shoulders, thorax and upper extremity. Anterior view. A typical loss of sweating of a portion of face, shoulder and upper extremity on the right side. Only a left upper dorsal sympathectomy had been performed for status anginosis. The healed incision is visible below the left nipple. This case may represent a partial cross-sympathetic innervation. (Figure 8A and 8B are reprinted from the author's book MANAGEMENT OF DISORDERS OF THE AUTONOMIC NERVOUS SYSTEM, Chicago, The Year Book Publishers, Inc., 1955. Grateful acknowledgement is made to that publisher.)

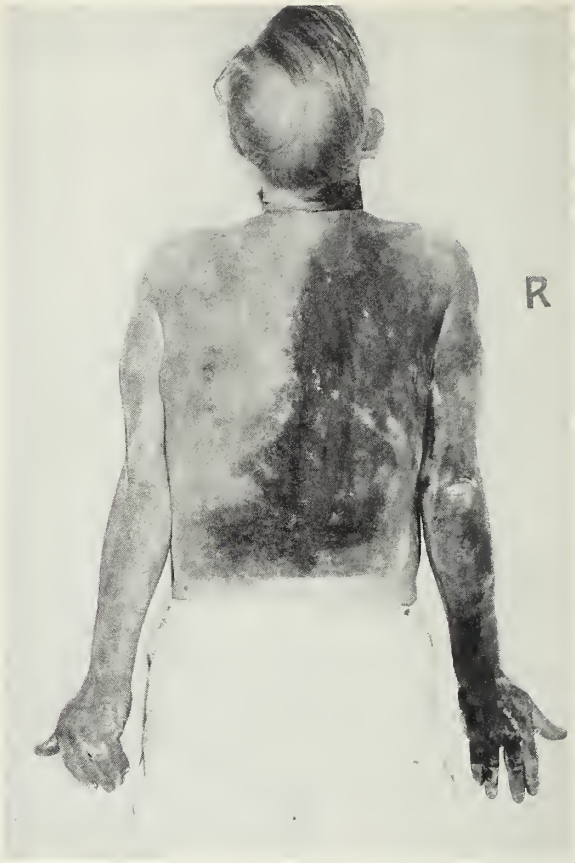


Figure 8B. Posterior view reveals only a typical left unilateral loss of sweating.

The pupils will remain equal and show no change following the technic described above, even though the first dorsal ganglion has been removed. If the dissection of the stellate ganglion is carried out cephalad to the first dorsal ganglion and ramus, a Horner's syndrome will occur, however. In one of our patients, a bilateral sympathectomy was performed. On the left, our basic technic was performed without a Horner's developing. On the right, however, because of an adhesive pleuritis the exposure of the chain and associated structures in that area necessitated extensive dissection about the stellate ganglion, with the result that a permanent Horner's syndrome occurred on the right side.

SUMMARY

The anterior transthoracic transpleural approach to the upper dorsal sympathetics is a safer and much simpler procedure to perform than those that have commonly been used in the past. It provides for a complete and permanent sympathetic denervation of the heart, coronary vessels, and head, neck and upper extremities. It carries lower morbidity and mortality rates.

Greater assurance can be given to the patient that complete or almost complete relief of angina will follow this technic, and that his rehabilitation will be more rapid. In many patients, cardiac function will improve. Indeed some of them can return to useful places in the socio-economic world.

As a result of this technic and of the studies through which it was developed, a new concept of the pupillo-ciliary pathways is proposed. Even though the first dorsal ganglion (lower one-third of the stellate ganglion) is removed, a Horner's syndrome does not occur. It is assumed, therefore, that the pupillo-ciliary pathways do *not* pass via the first ramus communicans to the first dorsal ganglion, but apparently are conveyed by a separate paravertebral pathway to the upper portion of the stellate ganglion.

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Some Practical Problems Involved in an

Educational Program on the Care of Premature Infants

MADELENE M. DONNELLY, M.D., M.P.H.

DES MOINES

All doctors, nurses and hospital administrators today are concerned with the improvement of care of the newborn in an effort to decrease natal-day deaths. This is true in Iowa, as in other states. Many individuals throughout the state have shown great interest in this vital problem, yet no concerted action has been undertaken. Failure to initiate such programs may be due to a lack of understanding of the problem as a whole.

In an effort to develop information for practical use at local levels, the Division of Maternal and Child Health of the Iowa State Department of Health has reviewed the statewide situation existing today.

Iowa is predominantly a rural state. The 1950 census showed that 53.1 per cent of the 2,622,598 people residing in the state lived in communities with populations of less than 2,500. The official register for 1951-1952 listed 697 incorporated places. In 604 of those, the population was less than 2,500. Forty were between 2,500 and 4,999; 28 were between 5,000 and 9,999; 10 were between 10,000 and 24,999; 8 were between 25,000 and 49,999; and 4 were between 50,000 and 99,999. Only one city had a population of more than 100,000.

In 1953 and 1954, there were 161 hospitals operating in the state where obstetrical cases were

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TABLE 1

IOWA HOSPITALS, BY SIZE OF OBSTETRIC SERVICE AND POPULATION OF TOWN

1953-1954

Population of Town	*Hospitals Grouped by Number of Deliveries per year*					
	LESS THAN 100	100-249	250-499	500-999	1,000 AND OVER	TOTAL
Less than 2,500	16	23	2	0	0	41
2,500-4,999	4	19	15	0	0	38
5,000-9,999	2	5	16	4	0	27
10,000-24,999 ..	0	2	8	5	0	15
25,000-49,999 ..	0	1	4	8	5	18
50,000-99,999 ..	2	1	1	5	5	14
100,00 and over	1	1	2	1	3	8
Totals	25	52	48	23	13	161

TABLE 2

LIVE BIRTHS IN HOSPITALS GROUPED ACCORDING TO POPULATIONS OF TOWNS

1953-1954

Population of Town	Number of Towns	Hospitals Number 1953	Hospitals Number 1954	Hospitals Per Cent	Number of Hospital Births	Per Cent of Total Births
Less than 2,500	604	41	40	25.6	10,011	8.0
2,500-4,999	42	37	36	23.0	17,420	14.0
5,000-9,999	28	27	27	17.0	19,102	15.3
10,000-24,999	10	14	15	9.1	13,425	10.8
25,000-49,999	8	18	18	11.4	26,850	21.5
50,000-99,999	4	14	14	8.8	24,296	19.5
100,000 and over	1	8	8	5.1	13,623	10.9
Totals	697	159	158	100.0	124,727	98.1

TABLE 3

INCIDENCE* OF PREMATURE INFANTS IN HOSPITALS, GROUPED BY NUMBER OF LIVE BIRTHS

1953-1954

Hospitals Grouped by Number of Deliveries per Year	Incidence of Previables	Incidence of Prematures	Total Infants Weighing Less than 2,500 Gm.	Average per Hospital per Year
Fewer than 100	2.1	53.4	130	2.6
100-249	3.0	49.5	980	9.4
250-499	3.4	50.8	1,913	19.9
500-999	4.2	55.6	2,007	43.6
1,000 and over	4.2	58.5	2,183	84.0
Totals	3.8	54.1	7,213	

TABLE 4

INCIDENCE* OF PREMATURE INFANTS IN TOWNS GROUPED BY POPULATION

1953-1954

Towns Grouped by Population	Incidence of Previables	Incidence of Prematures	Total Infants Weighing Less than 2,500 Gm.	Average per Hospital per Year
Under 2,500	3.2	45.6	499	6.2
2,500-4,999	2.8	47.9	884	12.1
5,000-9,999	2.8	48.9	987	18.3
10,000-24,999	4.3	49.8	726	25.0
25,000-49,999	4.4	58.4	1,688	46.9
50,000-99,999	3.5	59.1	1,522	54.4
100,000 and over	5.3	61.3	907	56.7
Totals	3.8	54.1	7,213	

TABLE 5

NEONATAL DEATH RATE PER 1,000 LIVE BIRTHS FOR PREVIABLE INFANTS

(All Infants Weighed Under 1,000 Gm. at Birth)

Towns Grouped by Population		Hospitals Grouped by Number of Deliveries per Year	
Under 2,500	812.5	Fewer than 100	1,000.0
2,500-4,999	898.0	100-249	857.1
5,000-9,999	867.9	250-499	867.8
10,000-24,999	879.3	500-999	892.9
25,000-49,999	916.0	1,000 and over	931.5
50,000-99,999	929.4		
100,000 and over	902.8	Total	895.3
Total	895.3		

* Rate per 1,000 live births.

TABLE 6

NEONATAL DEATH RATES OF PREMATURE INFANTS PER 1,000 LIVE BIRTHS

Hospitals Grouped by Number of Deliveries per Year	Birth Weights of the Infants 1,001-1,500 GM.	1,501-2,000 GM.	2,001-2,500 GM.	Total
Fewer than 100	615.4	294.1	94.7	176.0
100-249	589.0	255.8	46.7	127.7
250-499	624.2	198.4	54.2	136.7
500-999	662.5	170.2	40.8	117.3
1,000 and over	565.2	188.3	35.1	106.5
Totals	613.6	198.9	44.2	121.7

TABLE 7

NEONATAL DEATH RATES OF PREMATURE INFANTS PER 1,000 LIVE BIRTHS

Towns Grouped By Population	Birth Weights of the Infants 1,001-1,500 GM.	1,501-2,000 GM.	2,001-2,500 GM.	Total
Under 2,500	650.0	264.4	70.6	156.3
2,500-4,999	597.4	246.9	50.3	138.9
5,000-9,999	552.2	224.0	42.2	114.6
10,000-24,999	701.5	207.1	43.4	143.7
25,000-49,999	663.6	159.5	44.0	112.4
50,000-99,999	577.2	180.1	43.2	114.8
100,000 and over	579.5	165.5	28.2	110.1
Totals	613.6	196.9	44.2	121.7

accepted. There was at least one hospital in every town that had a population of 5,000 or over. There were hospitals in 31 of the 40 towns with populations of 2,500-4,999, and in 40 of the villages of fewer than 2,500 people.

There are no geographical barriers in Iowa, and no community is isolated from a hospital because of lack of transportation or of roads.

In Table 1, the hospitals are grouped according to the number of births occurring in the year and by the population of the community. The 13 hospitals with obstetric services of more than 1,000 births per year were all located in cities with populations of 25,000 or over. The 23 hospitals with obstetric services of 500-999 births per year were in cities of over 5,000 population.

In Table 2, hospital births have been tabulated according to the population of the community. It will be noted that although only one quarter of all the hospitals were located in towns with populations of 25,000, one half of all the deliveries occurred in that group of communities. Another one fourth of the hospitals were located in communities with populations of 5,000 to 24,999, and one third of all the deliveries occurred in that group of hospitals. The remaining one half of all the hospitals were in communities of fewer than 5,000 people, and only one fifth of all deliveries were divided among those 75 hospitals.

In this study, all infants whose birth weights were less than 1,000 Gm. (2 lbs. 3 oz.) have been classified as previable, and infants whose birth weights were between 1,001 and 2,500 Gm. (2 lbs. 3 oz. to 5 lbs. 8 oz.) have been classified as pre-

mature. Incidence or prevalence has been based on the rate per 1,000 live births. Neonatal deaths were those deaths occurring in the first 28 days of life.

In Table 3, the prevalence of premature and previable infants has been calculated for the different groups of hospitals, grouped according to the number of live births per year. Apparently, the greater the size of the obstetric service, the greater the incidence of previable and premature babies. In Table 4, previability and prematurity have been calculated on the basis of size of population. Here again, there is an overall indication of more prematurity in the larger population centers. This fact coincides with the finding that there is more prematurity in hospitals with large obstetric services, for those hospitals are located in the larger population centers. Both Table 3 and Table 4 show the average number of premature infants born in each hospital per year.

The neonatal death rate for infants weighing less than 1,000 Gm. at birth is given in Table 5. The death rates for the premature infants, grouped at 500 Gm. intervals, are set forth in Table 6 and Table 7.

THE PROBLEM

In the two-year study period, 78 hospitals were found to have fewer than 25 premature deliveries —fewer than one a month—and 40 hosptials had totals from 25 to 49 in 24 months. Twenty-three hospitals had from 50 to 99 premature deliveries, or two per month, and in 18 hospitals there were from 100 to 199 prematures, averaging from two to four per month. In only two hospitals were there more than 100 prematures born within one year—226 in one and 297 in the other in a 24-month period.

The previable infants have the poorest chance of survival, and it is apparent that their salvage is not influenced by the size of community or hospital. The total neonatal death rate for all prematures weighing between 1,001 and 2,500 Gm. apparently decreases as the size of the obstetric service of the hospital, or the population of the community, increases. This is more or less to be expected, since it is only in the larger hospitals that we have a premature census that warrants the employment of specialized personnel. Also, it is only in the larger communities that we find the specialist nurse or physician trained to care for premature babies. A better picture of fetal salvage may be obtained if the death rates are calculated for each 500 Gm. grouping. When we examine the death rates of the group of infants who weigh between 1,001 and 1,500 Gm., we again fail to find much variation in the death rates at the different hospitals. Although more of these infants are salvaged than in the previable group, about one third to one half of them fail to survive the neonatal period. It is in the next two weight groups, 1,501 to 2,000 and 2,001 to 2,500, that we see a definite reduction of neonatal death rates in the larger communities and in the larger hospitals.

ACCOMPLISHMENTS TO DATE

Up to this time, the Division of Maternal and Child Health has done the following in an effort to meet the needs of the premature infant.

1. *Professional education.* Stipends have been made available to the nursing and medical profession for training in the care of the premature. Speakers have been furnished to address medical groups and to participate in postgraduate courses at the State University of Iowa.

2. *Institutes on the care of newborn and premature infants.* These have been conducted in many hospitals throughout the state. Excellent teaching staffs have been obtained for the institutes, through the recruiting of local physicians as well as those from the SUI College of Medicine. The nurses attending those institutes have felt that they gained practical knowledge which is of value to them. Local public health nurses or members of visiting nurse associations were invited to attend all institutes so that there might be communication between the hospital and the field nursing staffs and a strengthening of referral systems. As yet, physicians have not been attracted to the institutes. It can be understood, however, that a physician who may deliver only one or two prematures a year cannot feel justified in taking time to attend these sessions.

3. *Consultant service.* During the past two years, a nurse on the staff of the Division of Maternal and Child Health has been receiving specialty training in maternity and newborn nursing. She has now returned to the Division and will be available to the hospitals for consultation.

FUTURE PROJECTS

Review and study of statistics on a state level must be based upon the problems that confront us if plans for meeting the needs in this state are to be made. Programs that need to be continued or developed in the future are as follows.

1. *Development of standards of hospital care.* Such standards must be high enough to assure the best care for the premature infant, but must remain flexible enough to allow for the development of a good quality of care in the small hospitals. Every small hospital is a vital part of its own community, and local pride in a small hospital will always inhibit the referral of prematures to larger medical centers. However, as standards improve in small hospitals, the staff members themselves will recognize more and more the value of transporting some prematures to a center where better care may be obtained. Standards of care in all hospitals, whether large or small, can be improved only by the Division's working with individual staff members and helping them to integrate progressive changes in service.

2. *Development of a premature center.* In a few areas in this state, the census of premature babies is high enough to warrant the development of a premature center. From the beginning, it must be appreciated that such a center is extremely expensive, and that unless more people are trained, it will be very difficult to staff more than one unit of that type. There should be at least one premature center in Iowa that could be used as a center for graduate training.

3. *Professional training.* Training of professional help must be continued and should be increased. As personnel from the Division of Maternal and Child Health work within hospitals throughout the state, they must be alerted to the possibility of finding individuals who could benefit themselves and their communities by taking postgraduate training. Whenever a hospital administrator finds that his institution has on its staff a nurse or a physician who is likely to remain in the community and who is interested in the care of the premature, he should seek assistance from the state agency in obtaining a stipend to finance his or her postgraduate training. When such individuals return from training, plans should be made to utilize some of their time for training others.

Institutes on the care of the newborn and the premature must be continued at local levels. Such institutes are a partial answer to the problem of the smaller hospital, where the staff is so limited that no one can be spared from duty for a period of time. By going directly into a small hospital, a well-trained team can assist the local personnel in the practical utilization of existing facilities. When teaching is done at the local level, it can be extended to the non-professional as well as to the professional nurses. A realistic attitude must be developed about the non-professional nurses, since they are essential in many small hospitals where it is impossible to obtain the services of professional nurses. Also, it is well for us to remember that hospital board members or lay leaders of a local community should be included in local training programs so that they may learn the importance and the extent of the problems of premature care.

In areas where staff members of the hospital are found to have good basic training in the care of premature infants, plans should be made for the utilization of these persons for teaching and for serving as consultants in nearby hospitals where there are acute problems in the care of premature infants.

4. *Integration of procedures in nurseries.* Local physicians must be encouraged to become interested in the care of the premature infant. Each hospital administrator should strive to have at least one of his medical staff members who, because of interest in the newborn, will assume responsibility for the supervision of the newborn nursery and the care of prematures in that nursery. That physician should serve as chairman of a committee to approve and correlate nursery standards and procedures. Standardization of procedures gives the nurses more time for providing actual nursing service to each infant. Every physician should be willing to forego individual idiosyncrasies so that the best nursing service may be given to every newborn infant, and he should allow the routine of the nursery to be based on technics that have been proved safest for the infant.

5. *Development of consultation service from the Division of Maternal and Child Health.* The staff of the Division has had specialized training in the problems of newborn and premature care. As this staff becomes acquainted with staffs of local hospitals, confidence in its abilities may be developed. This state staff is prepared to give consultation service and is willing to answer all requests for help in problems involved in newborn care.

CONCLUSIONS

Better salvage of the life of the newborn can be accomplished in this state through the development of integrated services in all of the hospital caring for obstetric cases. Increased knowledge must be disseminated to all personnel responsible for the care of mothers and their babies.

MASS EDUCATION PAYS OFF

Mass education programs of voluntary health groups have been very helpful in getting people to their doctors in the early stages of their illnesses, according to the majority of 500 physicians who participated recently in a survey conducted by the National Opinion Research Center, of Princeton, New Jersey.

The average M.D. surveyed believes that all adults should get a general physical checkup every year, and thinks it is extremely important for the public to be informed about health and medical matters.

Monthly breast self-examination for cancer was approved by 79 per cent of the physicians, and semiannual pelvic examinations for all women over 35 was approved by 71 per cent. Semiannual chest x-rays for all men over 45 were approved by 42 per cent.

Ninety-eight per cent believe the mass-education programs on such conditions as heart disease, tuberculosis and cancer have served a constructive purpose. In response to the question, *"Do you believe these programs have done any harm?"* 56 per cent said, "No, none at all." Forty-four per cent said "Yes, in some way in arousing fear."

Less than seven per cent suggested less emphasis on fear of disease in information programs and fund-raising appeals. Seventeen per cent urged more public education.

State University of Iowa College of Medicine

Clinical Pathologic Conference

April 11, 1956

SUMMARY OF CLINICAL FINDINGS

At two- to three-week intervals during the summer, six months before her admission to University Hospitals, a five-year-old girl had had episodes of unexplained fever lasting from 4 to 24 hours. The height of the fever had not been measured, and no other evidence of disease had been recognized. Except for the history of that vague illness, the patient's health had evidently been excellent until the onset of her terminal illness.

Twenty-six days prior to her admission to this hospital, the patient had anorexia, nausea and fever. Since other members of the family had similar complaints, the diagnosis of "flu" seemed adequate at the time. When after four days she still had a fever, her doctor made a diagnosis of pharyngitis, and gave her a series of three daily intramuscular injections of penicillin. The fever subsided, and the patient seemed to improve.

Nineteen days prior to her coming here, the onset of a generalized urticaria and periorbital edema was noticed. Antihistamine therapy was given, and the skin lesions gradually subsided during the following ten days, but they were described as leaving purplish areas as they disappeared. Two days after the onset of the urticaria, the people who attended the child noted bloody stools, hematuria and anorexia. During the three days' duration of those symptoms, abdominal pain was present, and the patient had a swollen and tender right ankle and knee which, she complained, pained her.

Thirteen days prior to her admission, the child was admitted to a local hospital because it had been noticed that she slept in an opisthotonic position, was lethargic and vomited. Her parents were told that she had a low-grade fever and that there were "many pus cells in the urine." A roentgenogram of the chest was reported to be normal. Therapy in the local hospital consisted of daily intramuscular injections of penicillin, of 50 mg. of cortisone, and of B_{12}.

During the gradual disappearance of the symptoms which had caused the child to be admitted to the local hospital, generalized edema was noted. Because of the increasing edema, she was transferred here.

On her admission to University Hospitals, the child was found to be of well above average height. She was alert, cooperative and in no apparent distress. Generalized edema was present about the eyes, over the sacrum, and in the feet and legs below the knee. A moderate amount of abdominal ascites was present. A soft, blowing systolic murmur was heard to the left of the sternum. The blood pressure was 118/86 mm. Hg. A roentgenogram of the chest showed no disease. The hemogram revealed 11 Gm. hemoglobin per 100 ml., 9,900 white blood cells per cu. mm., and a normal differential count. The examination of an uncentrifuged urine specimen revealed 4+ albumin, many white blood cells and a few red blood cells per high-power field. Many granular and hyaline casts were present. The serum chemical levels were: CO_2 combining power 26 mEq.; chlorine 105 mEq.; and cholesterol 635 mg. per 100 ml. The NPN was 50 mg. per 100 ml., and the total protein was 3.5 Gm. per 100 ml. The plan of therapy at the time of admission called for restriction of salt intake and close supervision.

One week after admission, ecchymotic areas appeared on the inner side of the left great toe and on the back of the left hand. A few petechiae were noted on the face. There was no change in the serum electrolytes, the examination of the urine showed no change, and the hemoglobin had fallen to 9.7 Gm. per 100 ml.

During the following week, the ecchymotic areas increased in diameter and were described as "looking almost gangrenous." The bleeding time was 10 minutes, and the coagulation time was 8 minutes and 20 seconds. The prothrombin time was normal, and the platelet count was 124,000 per cu. mm. Spikes of fever as high as 102°F. were recorded. The episodes of fever seemed related to the height of the patient's blood pressure, and the latter was, at one time at least, as high as 160/110 mm. Hg. Blood cultures taken at those times showed no organisms. Throughout this period, hematuria was present, and there was an increase in it during the febrile episodes. A muscle biopsy revealed normal tissues. The NPN was 89 mg. per 100 ml., and no alteration in the serum electrolytes had taken place. The hemoglobin was 8.9 Gm. per 100 ml. Oxytetracycline therapy was started.

During the patient's third hospital week, she had a croupy cough and stridor intermittently, but a roentgenogram of her chest was normal. Her weight had stabilized at approximately 50 pounds. No skin lesions appeared, and the old ones were clearing. There seemed to be a response to the oxytetracycline, for the fever disappeared 24 hours after the beginning of treatments. The blood pressure stabilized in the area of 130-140/80-90 mm. Hg., the NPN was 84 mg. per 100 ml., and a

hemoglobin of 4.9 Gm. per 100 ml. was recorded. The urine continued to contain a few red blood cells per high-power field. An electrocardiogram was normal.

During the following week, the major problem was treatment of the anemia. The report on a bone-marrow study mentioned "hypercellular marrow with essentially normal myeloid-erythroid ratio." A sedimentation rate of 12-46-64 mm. per 45 minutes was recorded, and the hematocrit was 16 per cent. As a transfusion of packed cells was given, a relatively severe urticarial reaction occurred and intravenous Benadryl was administered. The child made so much improvement during the following days that she was allowed to walk about.

But the improvement of this period was erased during the fifth week. There was an onset of new ecchymotic skin lesions, of fever and of blood pressure elevation, the latter reaching 150-160/100-110 mm. Hg. The NPN was 134 mg. per 100 ml., and the sedimentation rate was 20-34-74 mm. per 45 minutes. The serum electrolytes were: CO_2 combining power 17 mEq.; chlorine 95 mEq.; sodium 135 mEq.; and potassium 6.5 mEq. The hemoglobin had been elevated to 10.5 Gm. by the transfusion. A white blood cell count of 22,550 per cu. mm. was recorded, and the differential count was normal. The urinalyses continued to show 4+ albumin and gross hematuria. ACTH therapy, 50 mg. every six hours, was started in conjunction with chloramphenicol therapy.

A member of the Dermatology staff who examined the child reported that the skin lesion appeared to be a "toxic purpura, such as is seen in drug eruptions . . . aggravated by a systemic condition."

During the following week, the hemoglobin fell to 4.7 Gm. per 100 ml., and a second transfusion was given. There was no clinical evidence of jaundice. The urinalysis showed 3+ albumin and a moderate amount of hematuria. The child weighed 57 pounds, and the edema was clinically severe, but the skin lesions seemed to have improved. ACTH therapy was reduced to 25 mg. every 12 hours.

On the thirty-eighth hospital day, the child's skin became mottled, the pulse became rapid and weak, and she was lethargic. The blood pressure mounted to 180/120 mm. Hg. An electrocardiogram was within normal limits.

Because of the clinical diagnosis of heart failure, the patient was digitalized, oxygen therapy was started and the hormonal therapy was decreased.

There was little change in the child's condition during the following day. On the forty-first hospital day, the patient expired, with clinical signs of acute heart failure.

CLINICAL DISCUSSION

Dr. Charles D. May, Pediatrics: It is my assignment to consider the clinical aspects of this patient's case. In undertaking my task, I feel most inadequate. The pathogenesis of her illness was not clear to us during her stay in the hospital, for the exact nature of the pathologic process could not be ascertained from the data then available to us. With this background, it was obviously impossible for us to arrange an entirely rational and orderly program of therapy. In addition, the diagnosis which we considered most probable was that of a condition which is poorly understood. Furthermore, this child was in the hospital nearly three years ago, a circumstance that adds to the difficulty of my reviewing all of the problems that faced us at that time.

We are fortunate that the record was maintained by one of our better residents and that, in so far as one can without making the patient the subject of a special investigation, he kept careful notes and acquired data in a discriminating fashion. In consequence, I believe we may have enough material to provide a background, but it is the pathologist who must throw the major light on the subject.

Because you have read the protocol, I need emphasize only certain ones of the points that have been taken up in it. The child's illness, it seems, could be divided into several major periods. First, some six months prior to the illness which led to her admission to the hospital, there was a series of vague illnesses, some of which were treated with antibiotics. Then, just shortly before her admission to this hospital, there was a fairly sudden onset of a flagrant collection of symptoms which were the object of our concern during the first week following her admission here. There then ensued two or three weeks of relative improvement, only to be followed in the fourth and fifth weeks by an exacerbation of the same symptoms and the appearance of some additional ones. Finally, there was a fairly sudden death, the cause of which was not clear.

Now, if I may, I should like to point out the parts of the protocol that particularly attract my attention. First, there was some sort of illness or group of illnesses as much as six months prior to the episode that led to the patient's hospitalization. Those ailments were never clearly identified, and I believe that they were treated with some of the current antibiotics. Just about a month before her admission, she had an illness for which antibiotic therapy was certainly administered. When the child came to this hospital, the symptoms and signs that faced us were fever, edema, purpuric manifestations, noticeable abdominal pain—in fact *conspicuous* abdominal pain —and arthralgia. There had been some findings in the urine, including blood. The child was referred to this hospital as an example of nephritis, and that explanation of her difficulty was accepted here. But I think a moment's reflection would

lead one to wonder whether her ailment were as simple as it seemed. For this group of symptoms and signs that I have enumerated are by no means regularly seen in pediatric nephritis, and I doubt even that they are common accompaniments of nephritis in adults. If one sees a child in whom hematuria has led to the diagnosis of nephritis, but in whom there are fever, purpuric manifestations, conspicuous abdominal pain and arthralgia, I would say that the diagnosis is unlikely to be simple hemorrhagic nephritis. Instead, these manifestations are frequently seen with other conditions in which the kidneys are involved, but in which the kidney is not necessarily the primary site of the pathologic process.

These manifestations were at first thought due to nephritis, and there were certain confirmatory findings such as hypoproteinemia and azotemia. As to which type of nephritis that might have been, the concept of nephrosis was applied. But this group of symptoms would be as incompatible with nephrosis as they are for hemorrhagic nephritis in childhood.

In view of the obscure origin of the disease and because therapy with antibiotics and hormones had thus far led to no alleviation of the symptoms, the plan of attack upon the problem called for the application of no specific therapy until we might arrive at a more nearly adequate understanding of the process, unless the course forced us to take some empirical supportive measures.

It was also found upon admission that the blood pressure was 118/86 mm. Hg. Those who deal more frequently with adults than with children may not realize that this finding is evidence of hypertension, but in this five-year-old child the normal blood pressure is in the neighborhood of 90/70. Thus, we should regard 118/86 as possible evidence of a mild hypertension, and the subsequent course did indeed demonstrate that the child had hypertension throughout her illness.

Thus we have added to the previous manifestations that of hypertension. From the laboratory work it was learned that there was a moderate leukocytosis. This discovery leads us to be even more doubtful that the patient's disease was a simple hemorrhagic nephritis. In fact, shortly after admission and on the basis of these symptoms it was suggested that her illness might rather be an example of periarteritis nodosa. The manifestations of fever, leukocytosis, purpura, edema, arthralgia and—in particular—abdominal pain are all quite characteristic of periarteritis nodosa in children, and actually constitute adequate grounds for one's making such a diagnosis without undue hesitancy.

The confirmation of the diagnosis obviously depends upon discovery of the characteristic pathologic lesion. This was sought through a muscle biopsy, but I believe that both the abstract and the record report the results as having been negative, or at least as having failed to reveal periarteritis nodosa. On careful examination of the pathologist's report, one finds that there were no arterioles in the specimen, and therefore, I suppose, the opportunity for identification was lacking. But even if arterioles are present, one can't be sure of avoiding false-negative results, for this process doesn't always affect every arteriole in the body. Thus, this effort at substantiating the diagnosis failed, but didn't provide conclusive proof to the contrary.

Simultaneous with this consideration, there appeared in the child some very striking lesions. The purpuric lesions became coalescent, particularly on the extremities, and assumed a violence which produced actual hemorrhagic bullae. Such hemorrhagic bullae may be seen in the course of infections, in streptococcemia or in sever forms of reactions resembling serum sickness. Also, they may be seen in vascular occlusive conditions, particularly cryoglobulin, and abnormal protein in the blood. The presence of cryoglobulin was sought for, but according to an oral report, was not found. I think you are all familiar with the fact that cryoglobulin is a protein that coagulates at 4°C and redissolves when the serum temperature is raised again to 37°C. Thus, in the extremities and other areas where there may be a chilling of the skin, it may actually coagulate within the vessels and lead to occlusive phenomena. This protein is frequently present in periarteritis nodosa, as well as in other ailments. In one form of disease this protein apparently is present from birth, with the result that a whole series of vascular occlusions occurs and that the extremities gradually become necrotic and wither away. Such a development is, however, a rare occurrence and probably did not take place in this child.

Because cortisone or adrenocorticotropic hormone may produce lesions in the glomeruli and in the vessels which at least to some extent simulate nephritis or periarteritis nodosa, we were hesitant to employ those agents in therapy. Recently, in a paper in the BULLETIN OF THE NEW YORK ACADEMY OF MEDICINE,* Dr. Lewis Thomas warned that one may expect to find this pathologic process developing in the course of prolonged hormone therapy. Some rheumatoid arthritis patients under treatment with hormones have indeed developed lesions characteristic of periarteritis nodosa, even though the symptoms of rheumatoid arthritis may have been suppressed. In consequence, unless one is certain of the diagnosis of periarteritis nodosa, one does not rush to the use of these compounds. Rather, he waits to be driven to use them. If he has been so compelled, of course, he may be tempted to employ them without concern for complications, since the prognosis in childhood involves a mortality of 95 per cent or greater. In this instance we were unable to establish our supposition that this might be

* Thomas, L.: Cortisone, ACTH and infection. Bull. New York Acad. Med., **31**:485-498, (Jul.) 1955.

periarteritis nodosa. We were contented to give ordinary supportive care and wait for the course to dictate our action. During the third and fourth weeks of the patient's hospitalization, she did seem to be improving, and therefore we withheld that therapy.

During the fifth week there was a sudden exacerbation of all of the symptoms. On that basis, and because the group of symptoms was strongly suggestive of periarteritis nodosa rather than of simple nephritis, we felt that we were obliged to employ the hormones that have certainly improved the outlook for individuals so afflicted. Therefore, adrenocortrophic hormone and cortisone were administered, but they failed materially to influence the condition. As time wore on, the child developed progressive signs of renal insufficiency—the BUN mounted steadily and there was an increase in the hypertension. Once during the child's stay in the hospital, there was an episode that had the appearance of acute laryngeal stridor, probably due to edema. Throughout the course, there had been sudden appearances of edema, arthralgia and urticarial lesions which strongly suggested an allergic type of reaction. Sometimes these seem to have been somewhat improved under the influence of antihistaminic drugs.

On the last day of hospitalization, however, there was a sudden change. The child became quite lethargic and showed signs of circulatory failure—mottled, cold skin. On clinical examination at that time, the heart seemed somewhat dilated. Previously, repeated roentgenographic examinations of the lungs and of the heart had revealed no evidence of pulmonary infiltration or of cardiac enlargement. This final impression of circulatory failure was based upon clinical examination alone. Because of the evidence of circulatory failure, a presumptive diagnosis of cardiac insufficiency was made, and the child was digitalized. But there was no beneficial effect. It is noteworthy that then, as previously, there were no changes in the electrocardiogram that might have suggested involvement of the myocardium. It is equally likely, in view of the fact that the blood pressure at that moment rose to 180/120 mm. Hg., that that final episode represented hypertensive encephalopathy or the effects of an arteriolar process in the central nervous system. Therefore, the cause of death may well have been intracranial, rather than due to a failure of the circulation.

Thus, before the pathologist tells us what actually transpired, I can conclude my introductory remarks by saying that the clinical manifestations of this child led us to believe that her disease was not a simple hemorrhagic nephritis, but rather was a widespread pathology involving blood vessels, with the accompanying manifestation of purpura and the other symptoms and signs that have been described. These we find most commonly to be associated with the lesion termed periarteritis nodosa, in which case the renal involvement might be thought of as no more than a part of the picture. The entire course was dependent as much perhaps upon several systems' being involved as upon a purely renal insufficiency. One may be in a position to maintain that the cause of death was intracranial, rather than either a failure of the cardiovascular system or a renal insufficiency. I believe that there was some restriction imposed upon the pathologist, with the result that he was unable to perform a complete examination. For that reason, this supposition of mine may have to remain unchallenged unless the pathologic process was one which clearly could not have involved the central nervous system.

The importance of our considering this child this afternoon, I should think, is not so much that we can exhibit our wisdom as that we can confess our ignorance. If our clinical diagnosis of periarteritis nodosa is substantiated by the pathologic findings, we have before us, perhaps, an example of one of the most extraordinary pathologic processes that cause disease in man. It is an example of what might be termed a delayed allergic response. In other words, the illness which had preceded this hospitalization and which could not be identified might have been either an antecedent factor or an early manifestation, and the subsequent course was one of exacerbations and remissions.

If Dr. Carter thinks that any such discussion would be applicable, perhaps he can be persuaded to elaborate upon the meaning of the term *delayed allergic reaction.* I have not scrutinized the pathologic protocol sufficiently to know precisely what the pathologic diagnosis may be. If one is stimulated by this patient to think about this group of diseases, I think he will find a recent article in the AMERICAN JOURNAL OF MEDICINE* worth his perusal. In it, Dr. H. Sherwood Lawrence provides an excellent summary of the experimental information and of the hypotheses that have been formulated regarding this group of disorders.

Dr. John B. Wild, Internal Medicine: Would you consider the diagnosis of Henoch-Schoenlein purpura?

Dr. May: Yes, I think one wouldn't fail to consider that diagnosis and perhaps several others. I didn't attempt to list all of the things which this group of symptoms might suggest. The reason for our considering it no more than briefly would be that here is a child who had a course characterized by fever, leukocytosis and arthralgia. The arthralgia, perhaps, is compatible, but the fever and the leukocytosis would be exceptional in a child having what is often termed an allergic type of purpura. That alone, I think, would make one hesitate. An involvement of the kidneys appearing early in the disease and progressing to renal insufficiency would be uncommon in this form of

* Lawrence, H. S.: Delayed type of allergic inflammatory response. Am. J. Med., **20**:428-447, (Mar.) 1956.

pediatric purpura. Episodes of such bleeding can occur in children, but they don't frequently lead to renal insufficiency. There is a form of purpura in children which, though much less common than the Henoch-Schoenlein variety, is accompanied by involvements of the kidneys, bleeding in the subarachnoid space and all of the other manifestations to which we have alluded. But it has singular differences, primarily morphologic, in terms of the purpuric lesions. Those morphologic characteristics were not present in this child.

Dr. John R. Carter, Pathology: One of the most significant abnormalities in this case was a severe, diffuse, subacute glomerulonephritis, characterized by an exudative as well as a proliferative type of reaction. The glomeruli were badly damaged and revealed striking proliferation of both the endothelial and epithelial cells of the tufts. There was very extensive tubular damage, varying from moderate degenerative changes to outright necrosis. As Dr. May has postulated, the disease process in the kidneys was not the ordinary type of glomerulonephritis, for in addition, there was a very striking abnormality of the arterioles and medium-sized arteries. This was characterized by an acute, fulminating, necrotizing arteriolitis in which extensive fibrinoid necrosis had virtually completely replaced the vessel walls. The reaction about these vessels was prominent and was characterized by both an acute and a chronic type of inflammatory response. In addition to the arterioles, several of the venules were also involved by the inflammatory process. The interstitial tissue was edematous, and heavily infiltrated with inflammatory cells. Eosinophils were particularly conspicuous.

Sections from the small bowel, the left ureter and the left ovary also showed vessels which were the site of a similar acute necrotizing angiitis. In spite of the fact that many sections were taken from other organs, no other vascular lesions were encountered. A particularly pertinent point is that none of the vascular lesions showed any evidence of healing, all being characterized by an exudative, necrotizing reaction. In so-called classical periarteritis nodosa that has persisted for several months or more, one commonly encounters healing phases of the vascular lesions. Such changes are characterized by fibrosis of the vessels, thrombosis with recanalization, and very prominent internal elastic membranes. Contrastingly, it has been said that the vascular lesions of so-called hypersensitivity angiitis usually don't show evidence of healing, but are of the necrotizing, exudative type.

There was severe cardiac hypertrophy, the heart weighing 160 Gm. (normal weight 85 Gm.) Anasarca was conspicuous. One liter of clear, straw-colored fluid was present in the abdominal cavity, and 300 cc. of similar fluid in each pleural cavity. There was severe chronic passive congestion of the liver, with central necrosis of the lobules. Both lower lung lobes exhibited a severe acute pneumonitis. The blood urea nitrogen at the time of autopsy was 117 mg. per cent, and the creatinine was 5.3 mg. per cent. Permission for examination of the brain had not been granted. From the autopsy findings, however, it was the concensus that the patient's death was largely the result of the extensive kidney damage and congestive heart failure.

As Dr. May has intimated, the group of disease processes often referred to as the necrotizing angiitides is poorly understood from the point of view of pathogenesis, etiology and clasification. For purposes of clarification, it might be well for us to give brief consideration to some of the historical aspects of this group. Periarteritis nodosa was first described as a disease entity by Kussmaul and Maier in 1866, and over the next 25 or 30 years a number of case reports meticulously described the gross and microscopic features of this disease. Most of the reports came from Germany, and by 1900 there was general agreement as to the morphologic characteristics of the process. It was recognized, for example, that the lesions primarily involved the muscular arteries, that they were segmental in distribution and, clinically, that multiple organ systems were primarily involved. About the turn of the century, and for the following 25 years, there was an attempt to elucidate the etiology. At one time or another, polyarteritis nodosa was thought to be the result of a bacterial or virus infection or infections, of vitamin deficiencies, and, finally, of sensitivity to a variety of proteins and drugs. Prior to 1900, one of the most striking observations had concerned the absence of vascular lesions in pulmonary tissues, but by 1900, several reports had indicated extensive lung involvement in certain cases. Beginning in about 1925, preliminary experimental work as well as certain clinical observations suggested that the lesions were the result of some form of hypersensitivity. A variety of toxic substances—drugs, proteins, etc.—were incriminated. In essence, this is the state in which we find ourselves at the present time. In very recent years, the work of Pearl Zeek and others, utilizing both experimental as well as clinical data, has to some extent clarified the various types of so-called vascular angiitides. Some attempt at more precise classification is indicated because of the salubrious and/or deleterious effects that steroid compounds may produce, depending upon the form of angiitis.

Since the precise etiology or etiologies of the various types of angiitis is not known, Zeek and her co-workers have devised a rather useful classification from a pathologic point of view. That system appears to categorize the lesions satisfactorily on the basis of what information is known at the present time. In essence, there are five principal forms of so-called necrotizing angiitis: (1) hypersensitivity angiitis, (2) allergic granulomatous angiitis, (3) rheumatic arteritis, (4)

classical periarteritis nodosa and (5) temporal arteritis. The two that concern us particularly in attempting to arrive at a posthumous diagnosis of this child's disease are hypersensitivity angiitis and periarteritis nodosa. In the hypersensitivity form, the venules as well as arterioles are commonly involved, whereas in classical periarteritis nodosa, only the muscular arterioles are commonly the site of the vasculitis.

Frequently, a necrotizing subacute or acute glomerulonephritis is a conspicuous feature of the hypersensitivity form, and often completely masks lesions elsewhere in the body. The exudative type of reaction, with respect both to the kidneys and to the vessels, is a conspicuous feature in the hypersensitivity angiitis, as opposed to the proliferative, and there are exudative types of reactions present in classical periarteritis nodosa. Another feature which was present in the case under discussion today but which is often lacking in classical periarteritis is a moderate to severe interstitial inflammatory reaction in a great many organs. In our present case, such inflammation was found and, as has been mentioned, eosinophils were likewise a prominent feature. Perhaps some of these points may be considered minor, and it is an accepted fact that they may overlap. In fact, overlapping features were present in the case under discussion. Factors such as duration and severity of the disease might very well account for some of the differences.

Thus, from a careful examination of the clinical and pathologic material, I should say that the best explanation for the abnormalities in this patient is the theory that some type of delayed allergic response brought about a necrotizing angiitis and the severe fulminating glomerulonephritis. It is worth re-emphasizing that the kidney lesions were complicated by severe necrotizing vascular changes that are ordinarily lacking in hemorrhagic glomerulonephritis.

Dr. May has already alluded to the significance of muscle biopsy in cases of necrotizing vasculitis. I should like to reiterate that irrespective of the particular form of angiitis, the lesions are generally segmental. Whether or not the actual nodules are seen is somewhat immaterial, but a negative muscle biopsy by no means excludes an angiitis.

Dr. Jack M. Layton, Pathology: Do you know from what muscle the biopsy was taken?

Dr. Carter: I believe it was from the gastrocnemius muscle.

Dr. Layton: Had the patient ever had any pain in the gastrocnemius?

Dr. May: I do not recall, and it is not mentioned in the record.

Dr. Layton: That is one of the things with which we commonly have trouble. We always get the gastrocnemius biopsy, and often the gastrocnemius has not been involved in the process.

Student: Is there a better site for the biopsy?

Dr. May: I understand Dr. Layton to have suggested that one should choose a site where a complaint may reside, for in doing so one has a greater hope of discovering the pathologic process. The record indicates that this child's complaint was not myalgia so much as arthralgia.

One of the lessons always to be sought in clinical pathologic conferences is a means for the improvement of therapy. Some of you will feel that we were too conservative in withholding ACTH and cortisone. In view of the findings, that may be a legitimate point of view. Yet when one considers the things that took place before the child's admission to the hospital and even afterward, he ought to be as anxious to avoid adding an offending agent as he is hopeful that the new therapy will be beneficial. Also, some of us had been forcibly conditioned by our experience with patients in whom treatment with cortisone had produced purpuric lesions not dissimilar from those seen in this child.

In some experiments with adrenalectomized monkeys, Dr. Gauchat has been endeavoring to reproduce some of the toxic signs of cortisone therapy, and has created purpuric lesions and edema very reminiscent in superficial appearance of the ones seen in this patient and in other patients treated with cortisone. I believe Dr. Layton was assigned the task of inspecting the tissues of those animals to see whether or not any lesions resembling those of polyarteritis nodosa were found.

I think, Dr. Carter, that for the sake of the record we should ask you whether or not the terms *polyarteritis nodosa* and *periarteritis nodosa* are synonomous. I noticed in the CURRENT INDEX OF THE SURGEON GENERAL'S LIBRARY that the term *polyarteritis* is not yet honored. Are the meanings of the two expressions identical?

Dr. Carter: As they generally are used, I think they are synonymous. The original term was *periarteritis nodosa.*

As regards Dr. Layton's assignment, I can say that the sections from the monkey did not reveal lesions comparable to those under discussion today. There was massive infarction of the kidneys, with focal areas of pneumonitis. No angiitic lesions were encountered.

I should like to ask one question regarding the rather pronounced anemia. It is my understanding that during the patient's lifetime the purpuric areas were rather extensive and perhaps were sufficient to account, in part at least, for the rather severe anemia. But I am wondering whether anemia to this degree is generally encountered in polyarteritis. Or do you feel that the hemorrhagic phenomena account satisfactorily for the anemia?

Dr. May: My experience leads me to say that this degree of anemia would not be anticipated un-

less there were considerable hemorrhagic complications. There was no effort made to discover whether there might not also be an element of hemolysis in this patient. There certainly was considerable extravasation of blood into the tissues as well as loss through the urine. I believe that there were no gross losses of blood by bowel or through vomiting. Although simple blood loss may have been sufficient, one couldn't help being attracted to this facet of the child's condition, as you have been. There might have been an added factor of hemolysis. There certainly was not much blood being contributed from the bone marrow, but there was a greater loss than would have occurred in simple aplasia.

Dr. Raymond G. Bunge, Urology: Was this type of case ever seen before the advent of antibiotics?

Dr. May: This type of case, I should imagine, could be found in the earliest recordings of medical literature, if it is indeed a delayed type of allergic reaction, among the inciting agents of which are ordinary bacteria and viruses. One need not have any man-made agent to start the sequence of events.

There are those who believe that the incidence of periarteritis nodosa has increased, but there are also those who believe that the disease has merely become more apparent because increased numbers of patients survive it. However, I think that there is enough basis for our supposing a connection between man-made agents and the occurrence of this disease so that we are justified in insisting that therapy should be chosen for specific indications. In this instance, for example, although we may have been guilty of not applying enough therapy, one can't help wondering about the rationale for the vitamin B_{12} injections that were administered. Vitamin B_{12} is certainly innocuous in much larger doses than were given to this patient, but such incidents always make one concerned about the basic philosophy of the person who was responsible.

SUMMARY OF NECROPSY FINDINGS

Dr. Carter: The kidneys were the seat of a severe, necrotizing, subacute glomerulonephritis, characterized by extensive proliferation of cells comprising the glomeruli; severe tubular degeneration; and in areas, necrosis and marked interstitial edema, with subacute inflammation. The arterioles, as well as some glomerular capillaries, revealed an acute arteriolitis with fibrinoid necrosis, segmental in distribution. Similar vascular lesions were found in the ovaries, ureters and small bowel. The postmortem BUN was 117 mg. per cent, and the creatinine was 5.3 mg. per cent.

Anasarca and periorbital edema were conspicuous. In addition to the generalized edema of the soft tissues, we found 1,000, 300 and 20 ml., respectively, of clear straw-colored fluid in the abdominal cavity, each pleural cavity and the pericardial cavity. The heart was hypertrophied (160 Gm., in contrast to the normal weight of 85 Gm.), and the left ventricle was dilated. There was severe visceral congestion, most marked in the liver and lungs, the former showing chronic passive congestion and central necrosis. Crops of petechial hemorrhages were observed in a variety of locations in a variety of organs.

The cause of death was renal failure secondary to glomerulonephritis and congestive heart failure.

NECROPSY DIAGNOSES

1. Subacute glomerulonephritis, severe, with acute necrotizing arteriolitis
2. Cardiac hypertrophy and dilatation
3. Generalized visceral congestion
4. Anasarca
5. Azotemia.

ALLERGIES RESPOND TO TRANQUILIZERS

The new tranquilizing drugs usually associated with the treatment of anxiety, tension and mental illness have brought relief to nearly one third of 194 allergy patients to whom they were given, according to Dr. Ben C. Eisenberg, assistant clinical professor of medicine at the University of Southern California and president of the California Society of Allergy.

The patients included many whose allergies had proved resistant to all other forms of treatment and many who exhibited undue anxiety, mental depression and tension. There were 40 children in the group, and 16 of them were benefitted by the drugs.

"Tranquilizing drugs," Dr. Eisenberg explained, "can serve a useful purpose in allergic individuals to relieve certain psychiatric states which tend to aggravate the physical manifestations of their disease. While no case was 'cured' in this study, many patients were made more comfortable, appeared to tolerate their symptoms much better, and showed a lessening of signs such as wheezing, skin eruptions, etc."

Three tranquilizing drugs, meprobamate (Milltown—Wallace), chlorpromazine (Thorazine—Smith, Kline & French) and resperine were administered during the study. The first of those three brought relief to 36 per cent of 83 patients, proving particularly helpful in the treatment of hayfever, asthma and allergic headache. The second was of value to 32 per cent of the 59 patients to whom it was given, proving of greatest benefit to children with asthma and eczema. Resperine was helpful to 21 per cent of 52 patients.

Side effects from the three drugs were observed in about one-sixth of the patients, but they were not serious, for they consisted in most cases of drowsiness and fatigue.

Coming Meetings

Out of State

July 2-27	**Clinical Heart Disease.** Peter Brent Brigham Hospital, Boston
July 2-27	**Yale Summer School of Alcohol Studies.** New Haven
July 2-27	**Gynecology.** Free Hospital for Women, Boston
July 7-13	**Symposium on T-B & Other Chronic Pulmonary Diseases.** Saranac Lake, New York
July 9-20	**Pre-assembly Postgraduate Course.** Cook County Graduate School of Medicine, Chicago
July 9-20	**Electrocardiography & Heart Disease.** Cook County Graduate School of Medicine, Chicago
July 9-20	**Review Course in General Medicine.** New York University, NYC
July 9-20	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 12-14	**Dermatology for GP's.** Univ. of Colo. Med. Center, Denver
July 16-18	**Postgraduate Medical Assembly of South Texas.** Shamrock Hotel, Houston
July 16-20	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
July 16-27	**Rhinology and Otoplasty.** Mt. Sinai Hospital, NYC
July 18-Aug. 1	**Hematologic Diagnosis.** Michael Reese Hospital, Chicago
July 23-26	**Ophthalmology.** Univ. of Colo. Medical Center, Denver
July 23-Aug. 3	**Practical Course in Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 23-Aug. 3	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
July 27-29	**Emergency Surgery—Acute Injuries.** University of Tennessee, Memphis
Aug. 1-6	**First International Congress on Human Genetics.** Copenhagen, Denmark
Aug. 6-17	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago

Chiropractors' Suit Is Dismissed

A suit for declaratory judgment, brought on December 23, 1955, by the Iowa Chiropractors' Association against the Iowa State Department of Health and E. G. Zimmerer, M.D., the state commissioner of health, was dismissed on May 18, 1956, by Judge Ray C. Fountain in the Polk County District Court at Des Moines. "The court," Judge Fountain declared, "should not entertain the determination of hypothetical, moot, academic, unnecessary or trivial determinations."

The Iowa State Medical Society had entered the case as intervenor on the side of the defendants and was represented at the trial by its attorney, Mr. Philip Cless.

Of the two groups of chiropractors, it was the "mixers" who brought the action. They, the chiropractors whose national headquarters are at Webster City, Iowa, would like legal sanction to employ such modalities as heat, light and physiotherapy in the treatments they administer, whereas the "straights," the chiropractors of the Palmer School whose headquarters are at Davenport, Iowa, are content to limit themselves to manipulations of the spine and other manual adjustments.

The lawsuit was a part of a campaign at which the "mixers" have been working for several years. In 1955, they tried to get the General Assembly to reinject into the Iowa Code a statement, deleted in 1924, which said in substance that chiropractors should have all the rights, duties and obligations of physicians not inconsistent with their chapter. Though in its decision in State vs. Boston (1939) the Iowa Supreme Court had declared the contrary, the chiropractors argued to the legislators 18 months ago and again maintained in their petition to Judge Fountain that there had been no intent to change the meaning of the act when it was condensed and reworded in 1924.

In bringing suit, the chiropractors also asked that they be declared eligible for selection by the governor to be state commissioner of health.

As regards the first of their requests, Judge Fountain pointed out that the courts can declare rights, status or other legal relations affected by statute, etc. only if it can be shown that there is an assertion of legal right by one party, and a denial of that right by the opposing one. That requirement, he said, had not been met in this case. About the chiropractors' contention that they should be deemed eligible for appointment to the position of state commissioner of health, Judge Fountain said, first, that there is no immediate prospect of the governor's having occasion to appoint a new commissioner of health, and second, that even if he were about to make such an appointment, the plaintiffs had failed to show that either the State Department of Health or Dr. Zimmerer (the defendants named in the petition for declaratory judgment) would be likely to have any share or influence in the governor's selection.

Mr. Max Putnam, the attorney for the chiropractors, told reporters for the Des Moines newspapers that he intended appealing the case immediately to the Iowa Supreme Court, and he has now done so.



STANDARDIZATION OF MEDICAL FEES

The Committee on Fees of the California Medical Association's Commission on Medical Services has recently completed a three-year study of the relative values that medical procedures bear to one another. In order that the figures might be applicable in one locality as well as in another, these values are expressed in units other than dollars. Some 4,700 physicians aided the Committee in the preparation of its report, and so far as is known, this is the first definitive review of the problem that has ever been attempted.

The relative-value study is intended to serve as a basis for modernizing the dollars-and-cents fee schedules or indemnity tables that are used by doctors, commercial insurance companies, Blue Shield, Blue Cross and a multitude of other plans. It provides a means for making charges proportional, one to another. The physician can use it to check on his own fees. An insurance company can use the figures in establishing understandable tables of indemnity payments to policy holders. The public can use the table to determine whether an insurance policy provides adequate benefits for the medical services covered.

Analysis of the Committee's survey revealed that the relationships among the fees charged for most procedures remain almost the same even in widely separated geographical areas, and with rural and urban factors included. Expressed in dollars, these relationships would not have been clear, but expressed in arbitrary units they provide a set of accurate and readily applicable ratios.

The schedule is divided into four distinct and separate parts: (1) medical services; (2) surgery; (3) radiology; and (4) pathology. The unit employed in one of those sections is not to be thought comparable with the one used in another of them. Thus, the schedule does not provide a basis for comparing, let us say, the fee that should be charged for a hospital visit with the fee to which a surgeon is entitled for performing an appendectomy. There are many reasons why such comparisons can't be made, some of them being the varying expenses for equipment, materials, personnel and depreciation.

In spite of the fact that superficial study of the above facts appears hopelessly involved, we believe that the California Committee has actually come forward with a schedule that has many virtues, and that its value will become apparent to anyone who takes the time and trouble to digest it. Copies can be secured from the California Medical Association, 450 Sutter Street, San Francisco 8. Every physician owes it both to himself and to his colleagues to spend some time studying it, for it may help him to eliminate inequities in his own schedule.

DOCTORS ATTEND BAR CONVENTION

About 50 members of the Iowa State Medical Society attended the final day's sessions of the Eighty-third Iowa Bar Association Convention, in Des Moines, on May 25, 1956. The program for the day consisted of a series of workshops on medico-legal problems such as the standards of practice governing doctors and lawyers, demonstrative evidence and expert medical opinion, psychology in qualifying medical experts and the art of picturization in hypothetical questions, the doctor in the courtroom, and the expert medical witness. A demonstration of proper and improper methods of interrogating medical witnesses, presented by the Legal Department of the AMA, was followed by a discussion period in which the audience asked questions of a panel of lawyers and physicians. Altogether, the sessions proved informative for all those in attendance.

The physicians of Iowa are indeed fortunate to have such opportunities as this to join other professional men, especially lawyers, in discussions of mutual problems. It is only through understanding one another's problems that men of good will can achieve unity of thought and of purpose. Through such meetings as the one that we have described, the usefulness of medical testimony will be greatly enhanced, and in an increasing number of instances justice can be made to prevail in our courts of law.

A joint committee consisting of representatives of the Iowa State Medical Society and the Iowa State Bar Association has prepared a set of standards for cooperation between lawyers and physicians. These standards have now been ratified by both organizations, meeting in their separate conventions during 1956, and they are to be found on page 310 of this issue of the JOURNAL.

The editors of the JOURNAL feel sure that they speak for all of the members of the Iowa Medical Society in saying that we are grateful to the members of the Iowa State Bar Association for having proposed the setting up of the joint committee and for having cooperated with our representatives in formulating the resultant set of principles. Of course the new code still must be put into practice, and its implementation will, first of all, require each practicing physician and lawyer to familiarize himself with it.

SOME SHORTCOMINGS OF BLUE CROSS

It is generally recognized that Blue Cross has been of great assistance in helping individuals meet the high costs of hospital care, but it is not so well known that the aid has been at the sacrifice of other benefits and at unnecessarily high premium costs.

In addition to the cost of providing beds for ambulatory patients admitted for study who would have been referred to private physicians if Blue Cross benefits were not available, overutilization has also brought about prolonged stays and has overtaxed the diagnostic facilities of hospitals, leading not only to delay in getting studies done but to inferior work as well. Whatever monetary gain to hospitals may have followed the cutting down of the patient's stay by improved medical and postoperative surgical care is more than negated by these unnecessary and costly admissions.

It would be well for organized labor to note that most of these millions are collected from employed workers by payroll deductions. The corrective measure is obvious—remove diagnostic services from Blue Cross and limit coverage to board and room and nonmedical services.

Removal of these services from Blue Cross contracts would do much good: (1) fewer hospital beds would be required; (2) hospital expansion could be geared to meet the needs of the community in caring for the sick, the purpose for which hospitals were intended, and not inflated to care for those who are not sick; (3) the maintenance cost of hospitals would be reduced, for smaller personnels and fewer supplies would be needed; (4) services of nurses, dietitians and others concerned with care of the sick would be improved, for their energies would not be exhausted by attendance on well individuals; (5) premiums for Blue Cross subscriptions could be greatly reduced, for a large percentage of the premiums is spent by hospitals in supplying diagnostic services; (6) the worker whose premium is now taken from his pay would have a much larger take-home pay; and (7) the cost to industry for the fringe benefits of unnecessary hospitalization would be utilized to reduce the cost of other benefits, provide much needed coverage for major illnesses, or returned to stockholders.

In addition, there would be a great reduction in hospital costs which would lessen the cost to the community of the maintenance of those facilities.

In a sentence, removal of diagnostic coverage from Blue Cross policies would benefit everyone, subscribers, hospitals, nurses, physicians, industry —the entire community—for it would improve hospital service, greatly reduce the cost of Blue Cross and restore to the worker the money taken from his pay for premiums, thereby increasing by a considerable sum his take-home pay.—John T. Farrell, Jr., M.D., in the April, 1956, issue of PHILADELPHIA MEDICINE.

DR. SNOKE CONTRADICTS HIMSELF

Dr. Albert W. Snoke, of New Haven, Connecticut, president-elect of the American Hospital Association and one of the Iowa Hospital Association's witnesses in Judge C. Edwin Moore's court in Des Moines during last year's lawsuit relative to the practice of medicine by hospitals, expressed two antithetical attitudes recently.

Writing for the September, 1955, issue of HOSPITALS MAGAZINE, he said: "Leaders of the AMA and AHA have put in long hours in joint committees over the past three years and have made real advances in mutual education and agreement at the national level. Similar progress has been made in a number of instances at the local and state levels. The most encouraging phenomenon has been that when responsible individuals take the time to learn the facts and understand the other point of view, a satisfactory resolution of the problem results. On the other hand, when the same issues are publicly debated or are attempted to be solved simply by resolutions by hospital or medical official bodies, emotion, fear and misunderstanding prevent an intelligent approach to a most complex subject."

But in the March, 1956, issue of MODERN HOSPITAL MAGAZINE, he was quoted as having made the following remarks as a panel discussion participant: "Money rather than recognition, quality of care or ethics is at the root of the hospital-specialist problem. Dollars are the thing many of these men are talking about. Offer the radiologist or pathologist twice as much as he is getting, and watch his opinions change." The magazine went on to say that Dr. Snoke warned hospital administrators: "Get to your attorney-general first. Don't wait to hear about an unfavorable opinion on the radio!"

"PAP" STAINS

Wide publicity has been given to the possibility of diagnosing cancer by means of the Papanicolaou method, and in consequence, laymen are coming to think of it as a short-cut to an answer to their questions and worries. But the physician may be hesitant to employ the procedure because he is completely certain neither of his technic nor of the significance of the answer he receives from the pathologist.

Members of the Nebraska Association of Pathologists have prepared and circulated a brochure entitled QUESTIONS AND ANSWERS ON EXFOLIATIVE CYTOLOGY which contains information on the proper technic for preparing slides and on the help that the test can be expected to give in a given case.

Though it is not altogether certain that the Nebraska Association of Pathologists is prepared to make copies of their original pamphlet available to Iowa doctors, it can be found reprinted on pages 250-252 of the June, 1956, issue of THE NEBRASKA STATE MEDICAL JOURNAL.

President's Page

Voluntary health agencies with memberships made up largely of lay people play an important part in the general health programs of the country. Among these organizations are those interested in cancer, tuberculosis, heart disease, crippled children and poliomyelitis, to name only a few. Active local groups exist in almost every community. Their activities include not only fund raising but the arousing of interest in the specific disease problems.

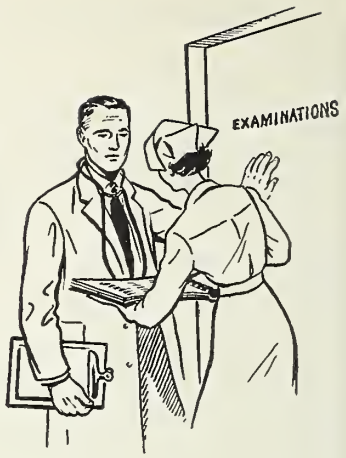
In the past, particularly at the county level, members of the Iowa State Medical Society have taken little active part in the work of these health groups. The officers of your Society suggest that each county society appoint one or more members to represent it in each of these local groups. And they urge that the doctors attend the health meetings and take an active part, at least as medical advisors. These men and women are devoted individuals with an interest in health, but they do need medical guidance at the local level. The county society representatives can add to the value of this program by making occasional reports back to their colleagues.

This contact with a large group of health-minded citizens has great public-relations value, and these are groups that can easily be enlisted to promote important health projects as they arise.

Wendell Downing, M.D.

President

THE DOCTOR'S BUSINESS



Planning Your New Office

MILLARD K. MILLS
WATERLOO

When you consider remodeling or building a new office, you should give serious thought to your floor plan. A specific list of your needs and desires will enable your architect to draw up a workable scheme at once, and naturally, the fewer afterthoughts that occur to you, the lower his fee should be.

Before reaching a final decision on what you want, you should decide how much growth you anticipate in your practice, and whether or not you want a plan that will allow for future expansion.

SOLO PRACTICE

Reception Room. Do you work by appointment and usually keep a prompt schedule? If so, a reception room of approximately 170 square feet may be quite sufficient. But if you are in a rural area where relatives and friends frequently accompany your patients, or if you do not work by appointment, you'd better allow at least 225 square feet. Also, please consider the size and number of your pieces of furniture.

Business Office. If you are interested in the best public relations and in good collections, you should plan to separate your business office from your reception room, connecting them with a window through which your secretary or nurse can greet incoming patients. A similar window or a counter facing the hall through which departing patients walk back to the reception room will permit your secretary to encourage payments and make financial arrangements with them in private. And having your business office a separate room will permit her to make and receive telephone calls without revealing every conversation to waiting patients.

How many girls will be working in your business office? Do you have a great many active files? A one-girl office of 8′x10′ is usually quite adequate. More space will be needed for a second desk or for extra files.

Laboratory and Drug Room. The size of this room should depend upon the volume of laboratory work done and the drugs dispensed. In a one-girl office, placing the laboratory next to the business office, with an archway between them, will permit your assistant to do her lab work and still see into the reception room to greet incoming patients promptly. If you have a two-girl office, however, you will undoubtedly find it more convenient to have your laboratory centrally located in your work area.

Make your laboratory as small as possible, and provide plenty of shelves, cupboards and counter space. You will, of course, want the most durable material possible, so that this room can be kept looking immaculate at all times.

Examining Rooms. The size of your examining rooms should depend somewhat upon your specialty, but generally an 8′x10′ room is most satisfactory. Again, these rooms should be as small as possible. The larger you make them, the more walking you and your staff will have to do, and the more cleaning you will have to pay for. On the other hand, since you don't want your patients suffering from claustrophobia or feeling that you aren't successful enough to provide satisfactory examining rooms, you shouldn't make them too small, either.

Be sure your doors open so as to provide maximum privacy to the patient. That is, let them open toward the wall so that the entire room is not exposed as you enter. If possible, you should provide a separate dressing room in each of them, or at least a curtain that can be drawn across a corner of the room so as to give the patient some privacy in dressing and undressing. Needless to say, any windows should be small and above eye level, even though they may open upon a protected area.

Two examining rooms for the average doctor are the very minimum, and three are not too many for a busy doctor. But more can seldom be used to advantage.

We shall continue our discussion of floor plans in subsequent articles.

Mr. Mills is general manager of Professional Management.

MINUTES OF THE 1956 SESSION OF THE HOUSE OF DELEGATES

Iowa State Medical Society

Des Moines, Iowa—April 22-25, 1956

SUNDAY AFTERNOON SESSION
APRIL 22, 1956

The House of Delegates of the Iowa State Medical Society was called to order by the Speaker, Dr. Herman J. Smith, of Des Moines, at 2:00 P.M., Sunday, April 22. The House of Delegates approved the taking of attendance by signed registration cards. There were 109 delegates and 14 voting alternates present.

County	*Delegate*	*Alternate*
Adair	A. S. Bowers	
Adams	C. L. Bain	
Appanoose	E. A. Larsen	
Audubon	M. K. Merselis	
Black Hawk	R. C. Miller	
	C. A. Waterbury	
	C. D. Ellyson	
	T. L. Trunnell	
Boone	R. L. Wicks	
Bremer	R. E. Shaw	
Buchanan	R. L. Knipfer	
Buena Vista	H. E. Farnsworth	
Calhoun	Paul Ferguson	
Carroll	J. M. Tierney	
Cass	R. H. Moe	
Cedar	H. E. O'Neal	
Cerro Gordo	H. G. Marinos	
	T. E. Davidson	
Cherokee	D. C. Koser	
Clarke	H. E. Stroy	
Clay	D. H. King	
Clinton	F. F. Luse	
	V. W. Petersen	
Dallas-Guthrie	W. A. Castles	
Davis	P. T. Meyers	
Decatur	K. R. Brown	
Des Moines	F. G. Ober	J. F. Foss
Dubuque	R. J. McNamara	
	D. F. Ward	
	P. J. Laube	
Emmet	J. P. Clark	
Fayette	A. F. Grandinetti	
Floyd	O. H. Banton	
Franklin	R. E. Munns	
Fremont	Kenneth Murchison	
Greene	L. C. Nelson	
Grundy	E. A. Reedholm	
Hamilton	G. A. Paschal	
Hardin	P. A. McLaughlin	
Harrison	A. C. Bergstrom	
Howard	C. W. Rainy	
Humboldt	J. H. Coddington	
Ida	R. E. Underriner	
Iowa	D. F. Miller	
Jasper	J. W. Billingsley	
Jefferson	J. W. Castell	
Johnson	G. C. Albright	
	R. H. Flocks	
	R. C. Hardin	
	L. H. Jacques	
	W. M. Keettel	
	W. M. Kirkendall	
	C. E. Schrock	
	S. C. Ware	
Jones	T. M. Redmond	
Keokuk	R. Giles Gillett	
Kossuth	J. M. Schutter	
Lee	L. C. Punphrey	
	G. C. McGinnis	
Linn	C. H. Stark	E. H. Files
	J. J. Keith	
	J. J. Redmond	
	John Parke	
Lucas	A. L. Yocom	
Madison	P. F. Chesnut	
Mahaska	G. W. Bennett	
Marion		D. A. Mater
Marshall	D. Dale Harris	
Monona	E. E. Gingles	
Montgomery	Oscar Alden	
Muscatine	K. E. Wilcox	
O'Brien		C. E. Vorhes
Osceola	T. J. Carroll	
Page	S. T. Ramsdell	
Palo Alto	H. G. Keeney	
Plymouth	F. D. Christensen	
Pocahontas	J. M. Rhodes	
Polk	D. F. Crowley, Jr.	W. D. Abbott
	R. A. Dorner	
	F. C. Coleman	
	T. A. Bond	
	F. M. Burgeson	
	J. T. McMillan	
	G. E. Mountain	
	N. W. Irving	
	B. M. Merkel	
	D. C. Wirtz	
	M. T. Bates	
	E. P. Lovejoy	
Pottawattamie	C. V. Edwards	H. W. Mathiasen
		F. E. Marsh
		T. V. Niemann
Poweshiek		
Ringgold	D. E. Mitchell	
Sac	W. I. Evans	
Scott	J. F. Bishop	A. J. Lenzmeier
	J. H. Sunderbruch	
	P. E. Gibson	
Shelby	L. V. Larsen	
Sioux		M. O. Larson
Story	J. G. Fellows	
	G. E. McFarland, Jr.	
Tama	C. W. Maplethorpe	
Union	H. J. Peggs	
Van Buren		K. Furumoto
Wapello		K. E. Lister
		P. D. McIntosh
Warren	L. E. Hooper	
Washington	D. G. Sattler	
Wayne	C. N. Hyatt	
Webster	C. J. Baker	
	H. H. Allen	
Winneshiek	E. F. Hagen	
Woodbury	F. D. McCarthy	
	A. Q. Johnson	
	R. C. Mugan	
	P. D. Knott	
	P. L. Bettler	
Wright		C. P. Hawkins

OFFICERS PRESENT AS EX-OFFICIO MEMBERS OF THE HOUSE

L. A. Coffin	B. F. Howar
W. L. Downing	S. D. Porter
R. F. Birge	E. F. Van Epps
N. B. Anderson	S. W. Corbin
H. J. Smith	C. H. Flynn
A. F. Fritchen	Fred Sternagel
C. O. Adams	G. H. Scanlon
P. W. Brecher	E. M. Kersten

Minutes of the April 27, 1955, meeting of the House of Delegates were approved as published in the July, 1955, JOURNAL OF THE IOWA STATE MEDICAL SOCIETY. The Speaker announced the appointment of reference committees, stating that reference committee meetings would take place at 8:00 A.M. on Monday, April 23, following a breakfast for reference committee chairmen. He outlined the procedures for delegates to follow in submitting reports, supplemental reports and resolutions.

Reports as published in the 1956 HANDBOOK FOR THE HOUSE OF DELEGATES were approved, except for those which made recommendations to the House of Delegates. The committee reports in the HANDBOOK not approved but referred to reference committees were those of the Subcommittee on Chronic Illness, the Subcommittee on Mental Health, the Committee on Blood Banking and the Committee on National Emergency Medical Service.

Reports of Officers

FROM THE OFFICE OF THE SECRETARY

This report is limited to factual data relative to AMA and Iowa State Medical Society memberships.

ISMS MEMBERSHIPS

The Iowa State Medical Society gained 19 members in 1955, for a total of 2,504, as contrasted with 2,485 in 1954. There were 62 counties this past year in which 100 per cent of county society members were also members of the State Society, as against 49 in 1954, for an increase of 13. In 1955 there were 71 eligible non-members, as against 97 in 1954; and there were 51 ineligible physicians in 1955, as against 60 in 1954. Physicians retired or not engaged in practice in 1955 numbered 97, as against 133 in 1954. Thus, 97 per cent of the physicians of Iowa were members of the ISMS in 1955, as against 96 per cent in 1954.

COUNTY SOCIETIES HAVING 100 PER CENT MEMBERSHIP IN ISMS, 1955

Adams	Dubuque	Lucas	Sac
Boone	Emmet	Lyon	Scott
Bremer	Fayette	Madison	Shelby
Buena Vista	Floyd	Mahaska	Story
Butler	Franklin	Marion	Tama
Calhoun	Greene	Monroe	Taylor
Cherokee	Grundy	Montgomery	Union
Chickasaw	Hamilton	Muscatine	Van Buren
Clarke	Hardin	Osceola	Wapello
Clay	Henry	Page	Warren
Dallas-	Howard	Plymouth	Wayne
Guthrie	Ida	Pocahontas	Webster
Davis	Jackson	Polk	Winneshiek
Delaware	Jasper	Pottawat-	Woodbury
Des Moines	Kossuth	tamie	Worth
Dickinson	Lee	Ringgold	Wright

This has been an unusual year for the ISMS membership department, since it became necessary for it to collect special dues of $25 levied by the Board of Trustees on authority of the House of Delegates. The response to the request for payment of those special dues has been very good, however, and thanks to the cooperation of county-society secretaries and individual physicians, the collection has proceeded on schedule.

The $10 collected from each member for the ISMS Educational Fund has been deposited in a special account, and the funds have been made available to the special committee which supervises the operations of the Fund.

1955 ISMS MEMBERSHIP RECORD

County	*Members*	*Eligible Non-Members*	*Ineligible Non-Members*	*Not in Practice or Retired*	*Percentage*
Adair	3	3	..	..	50
Adams	4	..	..	..	100
Allamakee	7	1	..	1	88
Appanoose	11	4	..	..	73
Audubon	5	1	..	..	83
Benton	16	2	..	..	89
Black Hawk	102	2	..	..	98
Boone	20	..	..	..	100
Bremer	17	..	..	..	100
Buchanan	8	1	9	..	89
Buena Vista	15	..	2	..	100
Butler	11	..	..	..	100
Calhoun	17	..	..	1	100
Carroll	23	1	..	..	96
Cass	13	1	1	..	94
Cedar	6	2	..	..	75
Cerro Gordo	65	1	..	..	99
Cherokee	16	..	..	1	100
Chickasaw	11	..	..	..	100
Clarke	6	..	..	..	100
Clay	12	..	..	..	100
Clayton	12	3	..	6	80
Clinton	54	3	3	..	95
Crawford	11	1	..	2	92
Dallas-Guthrie	31	..	5	..	100
Davis	13	..	..	1	100
Decatur	5	1	..	1	83
Delaware	11	..	1	1	100
Des Moines	45	..	..	..	100
Dickinson	8	..	..	..	100
Dubuque	72	..	..	2	100
Emmet	16	..	..	..	100
Fayette	22	..	..	4	100
Floyd	16	..	..	1	100
Franklin	9	..	..	..	100
Fremont	7	2	..	1	77
Greene	18	..	1	1	100
Grundy	14	..	..	..	100
Hamilton	13	..	1	..	100
Hancock-Winnebago	17	2	..	2	89
Hardin	24	..	..	2	100
Harrison	8	2	..	1	80
Henry	14	..	8	3	100
Howard	8	..	..	..	100
Humboldt	7	1	..	..	87
Ida	6	..	..	1	100
Iowa	14	1	..	1	93
Jackson	14	..	..	..	100
Jasper	19	..	..	3	100
Jefferson	11	1	..	1	92
Johnson	225	4	..	6	98
Jones	13	2	..	..	86
Keokuk	9	..	1	2	100
Kossuth	14	..	2	2	100
Lee	40	..	..	..	100
Linn	121	4	..	4	97
Louisa	4	1	..	..	80
Lucas	8	..	..	..	100
Lyon	5	..	..	..	100
Madison	7	..	..	..	100
Mahaska	19	..	..	1	100
Marion	16	5	..	..	76
Marshall	37	1	..	..	97
Mills	4	4	2	..	50
Mitchell	12	3	..	2	80
Monona	10	1	..	1	91
Monroe	7	..	..	..	100
Montgomery	16	..	..	..	100
Muscatine	21	..	2	..	100
O'Brien	16	1	..	..	94
Osceola	7	..	..	..	100
Page	23	..	3	..	100
Palo Alto	14	3	..	..	93
Plymouth	12	..	..	4	100
Pocahontas	9	..	..	4	100
Polk	329	..	2	9	100
Pottawattamie	67	..	1	4	100
Poweshiek	10	4	..	..	72
Ringgold	4	..	..	..	100
Sac	9	..	..	..	100
Scott	105	..	2	7	100
Shelby	7	..	..	1	100
Sioux	13	1	..	..	93
Story	43	..	..	..	100
Tama	13	..	..	..	100

County	Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage
Taylor	3	..	..	..	100
Union	14	..	..	..	100
Van Buren	5	..	..	1	100
Wapello	53	..	..	..	100
Warren	8	..	..	2	100
Washington	15	1	..	..	94
Wayne	7	..	..	..	100
Webster	56	..	..	2	100
Winneshiek	11	..	..	2	100
Woodbury	127	..	2	6	100
Worth	6	..	..	..	100
Wright	24	..	..	3	100
Totals	2,504	71	51	97	97

AMA MEMBERSHIPS

In Iowa during 1955, there were 2,445 physicians who held memberships in the AMA, thus entitling the Iowa State Medical Society to three delegates in the AMA House of Delegates. The total of 2,445 is 97.4 per cent of the total membership of the Iowa State Medical Society. All AMA dues collected have been remitted to the American Medical Association.

Arrangements for the annual meeting of the ISMS are nearing completion. The Program Committee has completed its work, and other plans are being developed on schedule. We are returning to the Veterans Memorial Auditorium this year with the advantage of having held one previous meeting in those facilities. The construction work which was being done while our Annual Meeting was in progress last year has been completed, and the entire facilities of the building will be ready and available to us.

I want to thank the officers, delegates and members for assisting the members of the staff and me in carrying out our work.

R. F. Birge, M.D., *Secretary.*

REPORT OF THE TREASURER

The year 1955 was an especially busy one for the Iowa State Medical Society, and the following financial statement reflects this activity. The majority of the committees functioned more often than before, thus naturally increasing expenditures in connection with their work. Other items which figure prominently in the increase of expenditures are the hospital-physician controversy and its resultant lawsuit; the more than doubled expenses of the annual session consequent to its enlargement upon being held in the Auditorium and to the addition of an extensive scientific exhibit section; the honorarium (a trustee expense) given Miss McCord in recognition and appreciation of her many years of service to the State Society; the increased operating expenses of the central office due to the additional work load that the many projects of the Society have brought about; and the remodeling of our building to obtain more office space.

Again this year the Baldridge-Beye Fund was turned over to the American Medical Education Foundation, the payment being earmarked for the State University of Iowa College of Medicine. Payment in the amount of $2,412 was based on the assignment of $1.00 for each 1955 dues-paying member (2,112) plus $300 which had been returned to the Fund early in the year when a young physician paid off his Baldridge-Beye loan.

ASSETS

Current Assets:		
Cash in Banks	$ 3,367.17	
Government Bonds	40,500.00	
Notes Receivable—		
Baldridge-Beye Fund	4,378.00	
Pension Insurance due from Employees	328.50	
Total Current Assets		$ 48,573.67
Fixed Assets:		
Land	$ 5,000.00	
Building	40,230.69	
Office Furniture and Fixtures	14,147.80	
Total	$ 59,378.49	
Less: Depreciation to Date	11,089.31	
Net Fixed Assets		$ 48,289.18
TOTAL ASSETS		$ 96,862.85

LIABILITIES AND NET WORTH

Liabilities:		
Local Taxes	$ 1,128.91	
TOTAL LIABILITIES		$ 1,128.91
Baldridge-Beye Memorial Fund:		
Balance 1-1-55	$ 4,678.00	
Add: Income 1955	2,112.00	
Total	$ 6,790.00	
Less: Payment to AMA Education Foundation	2,412.00	
Net Baldridge-Beye Fund		$ 4,378.00
Net Worth:		
Balance 1-1-55	$118,475.68	
Less: Net Expense 1955	27,119.74	
Balance, Period ending 12-31-55		$ 91,355.94
TOTAL LIABILITIES AND NET WORTH 12-31-55		$96,862.85

CASH RECEIPTS FOR THE YEAR 1955

Dues—State Society	$152,506.50
Dues—AMA	$ 49,495.00
ISMS Educational Fund	20,876.00
Journal Advertising	23,778.94
Journal Reprints	2,151.38
Annual Session	11,185.20
Miscellaneous	430.49
AMA Collection Commission	490.13
Interest—Government Bonds	1,590.27
Interest—Notes Receivable	16.50
Interest—Savings Accounts	15.82
TOTAL RECEIPTS	$262,536.23

EXPENDITURES FOR THE YEAR 1955

Annual Session	$ 13,904.58
Baldridge-Beye Memorial Fund	2,112.00

Committee Expense:	
Grievance	1,620.99
Legislative	10,200.00
Medical Education and Hospitals	251.07
Medical Service	695.99
Medico-Legal	900.00
Public Health	3,544.32
Public Relations	7,830.78
Other Committees	3,270.04
Council Expense	1,728.12
County Society Services	2,239.73
Depreciation—Building	1,012.82
Depreciation—Office Furniture and Fixtures	1,891.68
Discount on Bonds	46.55
Dues to AMA	49,445.00
Dues and Subscriptions	855.70
General Expense	1,104.23
Insurance	334.78
ISMS Educational Fund	20,876.00
Janitor Supplies	73.12
Journal—Printing and Engraving	24,631.64
Journal—Reprints	2,034.70
Legal and Auditing	5,615.00
Light, Gas and Water	916.15
Local Taxes	1,128.91
Office Stationery and Supplies	3,382.85
Pension Insurance	1,523.58
Postage	2,683.36
Repairs and Maintenance of Office Equipment and Building	148.43
Salaries	44,532.69
Salaries—Outside Secretarial	189.71
Service Contracts—Machines	350.52
Social Security	825.15
Special Public Relations	56,184.70
Telephone and Telegraph	4,218.31
Travel—Officer	4,131.00
Travel—Salaried Employee	2,914.14
Trustee Expense	9,537.06
Unemployment Tax—State	74.83
Unemployment Tax—Federal	99.78
Use Tax	595.96
TOTAL EXPENDITURES	$289,655.97
Net Expense	$ 27,119.74

N. BOYD ANDERSON, M.D., *Treasurer*

REPORT OF THE BOARD OF TRUSTEES

In December, 1954, the House of Delegates instructed the Board of Trustees to take whatever action might be necessary in opposing attempts by the Iowa Hospital Association to abrogate the Attorney General's opinion that the corporate practice of medicine by hospitals is illegal in this state. In anticipation of extraordinary expense in this connection, the House authorized expenditure of up to one-half of the State Society's reserves and, after this amount was committed, the Board of Trustees to be empowered to levy special dues of $25 per member. Fifty per cent of these reserves, or $30,000, was used plus the $25 collected from each member.

In January, suit was brought in Polk County District Court by the Iowa Hospital Association, and we engaged Mr. Philip Cless and Mr. John Blanchard, Des Moines attorneys, to defend the Society's interests.

As you know, we were successful in upholding the position of Iowa physicians, but the expense was considerable. The funds derived from the special assessment and the amount committed from the reserves proved no larger than necessary, but we are pleased to report to you that we were able to operate within the budget established on this basis, and that we incurred no deficit.

During the year 1956 the Board of Trustees made arrangements for attorneys to provide general legal service for the Society to be paid on a fee-for-service basis. Attorneys performing services in connection with the legislature will be employed on a fixed retainer.

Besides legal fees, there were additional charges for numerous conferences, meetings, secretarial services, printing, postage, mileage, hotel accommodations, telephone calls, telegrams, etc., directly or indirectly attributable to the trial. The extra work that was done in the evenings and on holidays by our regular employees cost us nothing, for they assumed their added duties uncomplainingly without extra pay. For these generous services, we are indeed grateful.

Dr. Everett George and Mr. Edward Hamilton are continually improving our JOURNAL until it now ranks with the best.

A resignation and the assumption of new responsibilities have occasioned some changes in our headquarters office. Miss Mary McCord, who had for years served us efficiently as our Executive Secretary and later as Assistant to the President and Director of Scientific Education, resigned on June 15, 1955, and her duties were apportioned among several members of the staff.

On July 1, 1955, Mr. Ray Stewart joined us. He is working half-time as Director of Public Relations for the Iowa State Medical Society, and gives the other half of his time to Blue Shield. We pay half of his salary and expenses. Mr. Stewart and Miss Tina Preftakes have greatly expanded our network of television outlets, and have made considerable improvement in the dramatic quality of the programs that we offer to the public by that means.

As a result of this re-organization, it became necessary to provide additional office space through rearrangement of the headquarters building. Under the direction of Dr. Richard Birge and the supervision of Mr. Donald Taylor, our office has been operating efficiently and in a perfectly businesslike manner.

Attendance of officers and committeemen at our Society's meetings during the year has been most gratifying. As long ago as many of us can remember, we have had hopes of stimulating more interest and better attendance at those gatherings so that we might have altogether adequate representation from all areas of the state in the conduct of our organization's affairs. During the period from April 27, 1955, to January 31, 1956, it seems that our hopes were finally accomplished, for the Executive Council met on four occasions, your Judicial Council put in seven full days of work for the Society, and your Board of Trustees put in ten days. The committees of the Society have had a total of 43 meetings during that same length of time. It is safe to say that at all of those sessions there was virtually perfect attendance. There are no attendance figures to show how many doctors attended the innumerable smaller meetings held by subcommittees and various groups of officers to facilitate the work of the official bodies or to transact the

current business of the Society. All of these combine to make up a very commendable record. It is well that we point out, however, that this increase in activity has necessitated added secretarial work, supplies, travel, meals, etc., all of which add to the cost of conducting the Society's business.

An unusual number of new problems have confronted us this past year. Of greatest importance was the necessity, pointed out by the Executive Council, that we start immediately upon expanding and intensifying our public relations program. It is common knowledge that the leaders of the Iowa Hospital Association are already making plans to work for repeal or change of the Medical Practice Act at the 1957 session of the state legislature. If they were to succeed in that endeavor, all of our previous victories would be nullified. We regret that the hospitals have chosen this course of action because it forces the doctors of Iowa to prepare for the defense of a medical practice act which it considers to be sound and one that was developed over a period of many years to protect the interests of not only the public but the hospitals and doctors as well. Revision of the Medical Practice Act so as to permit corporations, non-profit or otherwise, to employ physicians and sell their services will open the door to an invasion of the state of Iowa by closed-panel systems similar to Kaiser-Permanente and HIP.

This has been a most unusual and trying year for the officers of your Society. It has been interesting and often pleasant, chiefly because we were able to meet so many challenges with the feeling that the members of the Society understood our situations and were willing to support us in our actions. We are grateful to the Judicial Council for its assistance in helping the Board of Trustees to solve its problems during the year. The problems we faced this past year were unprecedented in the history of the Society. We defended the doctors in a lawsuit brought by the hospitals which, if the decision rendered by the judge in the District court is upheld, will establish a precedent for the practice of medicine throughout the United States and will serve as a bulwark against the encroachment of hospitals into the practice of medicine. In the legislature we gave direct attention to 34 bills that directly or indirectly would have affected the practice of medicine.

Another very important problem that faced the Society this year was the suit for declaratory judgment which was filed against the Commissioner of Health and the State Department of Health by the Iowa Chiropractic Association and seven of its members on December 23, 1955. This suit was filed by the chiropractors as an attempt for them to obtain equal rights and privileges on the same basis as now afforded doctors of medicine and osteopaths. Their petition implies that interpretation of the intent and meaning of the word "physician" as used in the Iowa Code will accomplish this for them. The Iowa State Medical Society has intervened in this suit on the side of the Health Commissioner and State Department of Health.

All of these problems have required an increase in activity in every phase of the operation of the Society. Our legislative activities had to be stepped up and, in accordance with a directive from the House of Delegates, we have added a department of public relations.

With an almost exhausted reserve and no other contemplated sources of income at this time, our annual budget which is maintained from dues collected will be insufficient to cover unusual expenses already anticipated without any recognition being given to the extraordinary expenses that may arise.

This report is brief and covers only the highlights of activity that have involved your Board of Trustees during the past year. We plan to present a more comprehensive supplemental report to the House of Delegates. In the meantime we hope that all of you who receive the Delegates' Handbook will take time not only to peruse this report of your Board of Trustees but all of the reports contained therein because the Handbook is a summary or digest of most of the activities which have been carried on by your Society in the preceding year.

Fred Sternagel, M.D., *Chairman*

Report of the Council

FIRST DISTRICT

In the First Councilor District during 1955, all of the county societies participated in the program of Salk vaccine inoculations, and the larger ones of them, Bremer, Clayton, Fayette, Floyd, Mitchell and Winneshiek, held rather numerous meetings, at many of which scientific programs were presented. Perhaps I should make note of the fact that the Floyd County Medical Society functions more frequently under the title of the Cedar Valley Clinical Society than under its own name. Officers of the two groups are identical, and presumably the memberships are substantially so.

The Clayton County Medical Society cooperated with the State Department of Health and the Tuberculosis Association in a county-wide chest x-ray program during the year.

The Fayette County Medical Society honored Dr. E. S. Kennedy on December 13 on her completing 55 years in general practice, and nominated her for the GP-of-the-year award.

The Winneshiek County Medical Society voted unanimously on February 8 against the acceptance of any or all of the expanded Hill-Burton Act which would provide federal aid for the building of diagnostic centers, as well as nursing and convalescent homes. The members of that Society also went on record as opposing the combining of their activities with those of societies in surrounding counties, as was proposed by Page County. They report that they have experimented with such a plan and though the speakers secured for the joint meetings were excellent, the attendance was most disappointing.

A. F. Fritchen, M.D., *Councilor.*

Deputy Councilors:

D. W. Dohnalek, M.D., Allamakee
F. R. Sparks, M.D., Bremer
M. J. McGrane, M.D., Chickasaw
P. R. V. Hommel, M.D., Clayton
A. F. Grandinetti, M.D., Fayette
E. V. Ayers, M.D., Floyd
P. A. Nierling, M.D., Howard
T. E. Blong, M.D., Mitchell
E. F. Hagen, M.D., Winneshiek

SECOND DISTRICT

A special meeting of physicians in the Second Councilor District was held on November 17, 1955, primarily to discuss Blue Shield problems. The polio inoculation program was carried out in the spring and fall in all District II counties in the standard way.

In Butler County there are eight active members, two life members and one member in military service. Routine 4-H exams were carried out, and the one general business meeting of the year was held in December.

The Cerro Gordo County Medical Society held monthly meetings except during the summer, and top-grade visiting speakers were secured for them. During the year a new constitution and by-laws were adopted, and the Society made itself legally into a non-profit corporation. Routine pre-school examinations were carried out as in previous years.

Franklin County Medical Society now has nine members, one of whom is in military service. Monthly meetings were held during 1955 in conjunction with the staff of the Lutheran Hospital at Hampton.

The Hancock-Winnebago Medical Society held quarterly meetings this past year. In Humboldt County, the Medical Society carried out a countywide preschool examination program. In Kossuth County, the Medical Society held monthly meetings in association with the staff of St. Ann's Hospital, Algona, and sponsored a tuberculosis survey program and crippled children's clinic there. The Worth County Medical Society also sponsored a tuberculosis survey program.

There are now 22 members of the Wright County Medical Society, three more than last year at this time. Five dinner meetings were held during the year, at three of which there were scientific programs. An annual school immunization program was carried out.

C. O. ADAMS, M.D., *Councilor.*

Deputy Councilors:

FRANK F. MCKEAN, M.D., Butler
H. G. MARINOS, M.D., Cerro Gordo
W. L. RANDALL, M.D., Franklin
T. J. IRISH, M.D., Hancock-Winnebago
I. T. SCHULTZ, M.D., Humboldt
M. G. BOURNE, M.D., Kossuth
R. L. OLSON, M.D., Worth
S. P. LEINBACH, M.D., Wright

THIRD DISTRICT

The Third Councilor District of the Iowa State Medical Society has been progressing very smoothly during the year 1955.

Regular meetings of the county medical societies have been held in Clay, Emmet and O'Brien Counties. The other societies in the District have held meetings on call of the secretary or when some special business was to be discussed.

The Northwest Iowa Medical Society, consisting of the doctors in Lyon, Sioux, Osceola and O'Brien Counties, has had two regular meetings, and they have been well attended. The Upper Des Moines Medical Society had its Annual Meeting in August at Vacation Village, on Lake Okoboji. It drew a large number of doctors from this and surrounding districts.

Clay and Emmet County Auxiliaries have been very active. Clay County had the honor, in 1955, of having Mrs. Dean H. King, one of the members of its Auxiliary, chosen as president-elect of the State Auxiliary. The Emmet County Auxiliary serves lunch at each meeting of the County Medical Society.

T. L. WARD, M.D., *Councilor.*

Deputy Councilors:

C. L. JONES, M.D., Clay
R. F. WOLCOTT, M.D., Dickinson
E. K. VAUBLE, M.D., Emmet
STUART COOK, M.D., Lyon
E. B. GETTY, M.D., O'Brien
F. M. RIZZO, M.D., Osceola
H. L. BRERETON, M.D., Palo Alto
C. L. JONES, M.D., Pocahontas
M. O. LARSON, M.D., Sioux

FOURTH DISTRICT

During 1955 there were no Fourth Councilor District meetings. The councilor attended one meeting of the Woodbury County Medical Society, in Sioux City, to discuss various problems that confronted the State Society at that time.

Cherokee County Medical Society held its annual spring scientific meeting, and it was well attended by doctors from that county and the surrounding ones. Buena Vista County Medical Society held its annual afternoon golf and evening scientific meeting in June. This meeting was also well attended by the doctors of surrounding counties. Woodbury County Medical Society held its annual picnic in August, with a large turn-out. The activities consisted of trap shooting, a social hour, a lovely dinner and an evening of good fellowship.

Counties in which the medical societies held monthly meetings included Woodbury, Cherokee and Plymouth. Ida County holds joint meetings with Sac County, and Buena Vista holds quarterly meetings. Monona County Medical Society held one meeting, the one at which it elected its officers.

All county societies participated in the first and second grade school polio-immunization programs.

Changes in membership in the District were less numerous than in 1954. Five new physicians located in Woodbury County, there was one transfer from Boone to Sac County, and there were three deaths.

The Woman's Auxiliary has been active in Woodbury, Plymouth and Monona Counties. Buena Vista and Cherokee have some members-at-large in the State Auxiliary, but do not have organized chapters of their own.

P. W. BRECHER, M.D., *Councilor.*

Deputy Councilors:

T. E. SHEA, M.D., Buena Vista
J. R. MARTIN, M.D., Carroll
D. E. KOSER, M.D., Cherokee
R. M. JOHNSON, M.D., Crawford
M. W. GRUBB, M.D., Ida
C. W. YOUNG, M.D., Monona
H. L. VANDERSTOEP, M.D., Plymouth
C. E. LIERMAN, M.D., Sac
DON BLUME, M.D., Woodbury

FIFTH DISTRICT

The medical societies in Boone and Story Counties have held 10 joint dinner meetings during the year, at each of which a scientific program was presented. Separately, the Boone County Society has conducted business meetings at the county hospital, where all staff members are likewise members of the Society, and the Story County Society held a social meeting in the summer. The Woman's Auxiliary of Boone County has sponsored a future nurses club and has held a tea for all school girls in the county who were interested in nursing. Speakers were obtained to inform the girls about the nurses' training courses. The Story County Society has had a net gain of three members during the year, and the Boone County Society a net loss of one.

The Calhoun County Medical Society has 17 members, only two of whom have retired from practice. Because it is one of the smaller such organizations in the state, the Calhoun Society continues to be interested in joining forces with one or more of its neighbors to form a group large enough to support more and better scientific programs, to make its influence felt, and so forth. The Calhoun County Society has followed with interest the upset in Iowa's mental health program, and has felt that an effort should be made to improve understanding and secure cooperation between physicians and the State Board of Control. Furthermore, the entire group has felt that some of the bitterness involved in the clashes of the past year occasioned by the hospital-physician controversy have worked to the disadvantage of both the Hospital Association and the Medical Society. The members are interested in seeing a reasonable solution to the problem evolved expeditiously.

The Dallas-Guthrie Medical Society is at present one of no more than two "hyphenated" groups in the Iowa State Medical Society. Much can be said in favor of such an arrangement for the counties that have relatively few doctors. The total membership in this Society is 31. Of those doctors, 24 are active, 2 are life members and 2 are in military service. The Society had five combined dinner and scientific meetings during the year, all of which were well attended. Interest has been keen in all of the problems which now confront organized medicine.

Two of the 16 members of the Greene County Medical Society have left to secure graduate training during the year, and one of them has been replaced by a newcomer. The group has given much time to the discussion of medical public relations problems, and has come to some conclusions. First, the members believe that Blue Shield needs an early overhauling, so as to make its schedules correspond with average fees. Second, they think the State Society's attitude regarding the Blue Cross Comprehensive 70 Contract has been correct. Third, they endorse the stand that the AMA has taken regarding the VA's pauper's oath. The members have scrutinized the federal government and polio foundation's maneuvers as regards Salk vaccine, but have been unable to see their justification. In general, the Greene County doctors oppose statism and the entry of politics into the distribution of polio vaccine.

During 1955, the Hamilton County Medical Society had ten monthly meetings for dinner and for discussion of general medical problems. One new member was acquired and one honored member was lost through retirement. The Society observed the hospital-physician controversy with interest, and the members were agreed that the decision rendered by Judge C. Edwin Moore was the only reasonable one.

Although great strides have been made by most organizations of doctors toward the achievement of good public relations on both the state and national levels, the Hamilton County doctors feel that the present stand of the American College of Surgeons has created disharmony among doctors. Thus, they should like the College to make a prompt clarification of its policy, especially as it relates to the practice of medicine in rural areas.

The Polk County Medical Society has had its usual eight monthly meetings during the year, with an average attendance of 98 members. Strictly scientific programs were presented at four of them. Including life members, resident physicians and members in military service, the Society's rolls now contain the names of 329 doctors.

The society has been alert to the profession's civic responsibilities in several areas. It has maintained liaison with all other organizations interested in improving health conditions, and it has worked with and supported the ISMS in its positive and progressive program. Every effort has been made for the Society to maintain satisfactory relations with the public through education, information, emergency service, representation and whatever else has seemed an opportune means of fulfilling the responsibilities of organized medicine.

The Webster County Medical Society held regular meetings throughout the fall, winter and spring months. The programs were interesting and the attendance was good. There has been a net gain of two physicians in the county during the year. The Society cooperated with all professional and lay organizations in the county, and administered Salk vaccine to all first and second graders in the schools, free of charge.

Bruce F. Howar, M.D., *Councilor.*

Deputy Councilors:

Ralph L. Wicks, M.D., Boone
Glenn S. Rost, M.D., Calhoun
Allan G. Felter, M.D., Dallas
Elvin D. Thompson, M.D., Greene
William A. Seidler, M.D., Guthrie
William B. McGahey, M.D., Hamilton
Maurice T. Bates, M.D., Polk
John D. Conner, M.D., Story
Charles J. Baker, M.D., Webster

SIXTH DISTRICT

The reports of the deputy councilors indicate general interest in the recommendations and suggestions that they have received from the Iowa State Medical Society, and willingness to cooperate.

The county societies should all be congratulated for their work in the immunization and tuberculosis survey programs. The members were generous with their time in administering the Salk vaccine to grade school children during the spring and fall of 1955.

The ISMS members in District 6 should also be congratulated on being nearly 100 per cent in paying

the special assessment to defray expenses of the hospital-physician litigation. That fine record certainly indicates their conviction that only physicians, not corporations, should engage in the practice of medicine.

The county societies have held regular meetings throughout the year, either monthly in conjunction with hospital-staff sessions, or quarterly. Benton County was able to hold only two meetings, thus constituting the single exception. That society has 18 members, 16 of whom are active members of ISMS.

It is reported that during the year there were 19 physicians who moved into the district, three who moved out and five who died. Thus, there was a net gain of 11 in 1955.

The Woman's Auxiliary is active in the larger counties, but, regretably, in the smaller ones it has been impossible to stimulate enough interest among the ladies to bring them into this important branch of the Society.

The doctors of District 6 have cooperated well in the preceptorship program. Their opinions indicate a feeling that the plan is accomplishing its purpose.

A district meeting was held in Marshalltown on January 12, 1956, for the purpose of hearing Mr. Wilbur Quinn and Mr. W. H. Sherin discuss the Blue Shield Contract. Their able presentations were very well received and were followed by an interesting and informative question-and-answer period.

The Allen Memorial Hospital, at Waterloo, has a fine new addition, and the Skiff Memorial Hospital, in Newton, will shortly complete its fine building project.

The annual district caucus was held in Marshalltown preceding the 1955 Annual Meeting of the Iowa State Medical Society and was attended by all delegates or alternate delegates from the component county societies. There was informal discussion of the problems which it was anticipated would be brought to the meeting of the House of Delegates. We feel that these caucuses have been invaluable, to enable the delegates to go to the Annual Meeting well informed on the issues and aware of their constituents' attitudes on each of them. During those sessions they also learn the qualifications of the candidates for the various offices in the State Society.

I wish to express my sincere appreciation to the deputy councilors of the district for their continued cooperation and valuable assistance.

S. D. PORTER, M.D., *Councilor.*

Deputy Councilors:

N. C. KNOSP, M.D., Benton
C. D. ELLYSON, M.D., Black Hawk
E. A. REEDHOLM, M.D., Grundy
L. F. PARKER, M.D., Hardin
C. F. WATTS, M.D., Iowa
J. W. FERGUSON, M.D., Jasper
R. C. CARPENTER, M.D., Marshall
T. V. NEIMAN, M.D., Poweshiek
A. J. HAVLIK, M.D., Tama

SEVENTH DISTRICT

As happened last year, all but one of the deputy councilors reported to me on the activities of their respective county medical societies. A study of their reports indicates that the ISMS members in the Seventh District were very active in professional, social and political programs at both the state and county levels. In several areas the members entered into local civic activities, thus not only fulfilling their responsibilities as citizens but enhancing the reputation of physicians generally as community-minded people.

This report would be incomplete if it were not to include recognition of the services that the Woman's Auxiliary is performing in the counties where it has been organized. The Woman's Auxiliary can and does increase the effectiveness of the medical profession, particularly as regards civic affairs. It makes a contribution to the improvement of medical public relations, too.

The physicians of the Seventh District, I believe, are aware that the physician-hospital controversy is not yet settled, and that steps must be taken to circumvent any attempt at changing the Medical Practice Act. I also believe that the membership of the ISMS now realizes more than ever before that the battle was not a specialist-hospital affair, but that it concerned every man and woman engaged in the practice of medicine.

I wish to take this opportunity to thank personally the deputy councilors who have served so faithfully during my term as councilor. Without them the work could not have been done.

E. F. VANEPPS, M.D., *Councilor.*

Deputy Councilors:

P. J. LEEHEY, M.D., Buchanan
H. E. O'NEAL, M.D., Cedar
V. W. PETERSEN, M.D., Clinton
R. E. CLARK, M.D., Delaware
D. F. WARD, M.D., Dubuque
L. E. JACQUES, M.D., Johnson
T. M. REDMOND, M.D., Jones
H. J. JONES, M.D., Linn

EIGHTH DISTRICT

The physicians in the Eighth Councilor District have been quite active. All societies have held regular meetings, the smaller ones holding sessions at the same time as those of their county hospital staffs. All groups have made fine efforts to bring outside talent to their scientific meetings.

Many members have expressed their thanks for the periodic information letters that they have received from the central office of the ISMS.

Doctors throughout the district participated in the Salk vaccine program. Scott was the only county in the area where the Salk field test program was carried out.

The only trouble spot in the area last year, Muscatine County, no longer has strife between osteopaths and doctors of medicine, and its new hospital seems to be functioning well.

Scott County Medical Society again carried on a series of medical forums in cooperation with daily newspapers in Davenport. The meetings were well attended and constituted a fine means for improving public relations. The Scott County Society's annual Health Fair, another of that group's praiseworthy activities, was a success again in 1955.

The Woman's Auxiliary is still making a strong effort to start a chapter in Scott County. Elsewhere in the district it is quite active.

J. H. Sunderbruch, M.D., *Councilor.*

Deputy Councilors:

J. F. Foss, M.D., Des Moines
W. H. Megorden, M.D., Henry
J. W. Castell, M.D., Jefferson
J. H. Ashline, M.D., Lee
R. L. Feightner, M.D., Lee
L. E. Weber, M.D., Louisa
K. E. Wilcox, M.D., Muscatine
T. W. McMeans, M.D., Scott
Kiyoshi Furumoto, M.D., VanBuren
G. E. Montgomery, M.D., Washington

NINTH DISTRICT

Because of a shortage of information, there is a possibility that I may slight the activities of some county medical societies in this report, but I can transmit no more than has been given to me.

Regular monthly meetings were conducted in 1955 by the societies in Davis, Mahaska and Wapello Counties, and all societies cooperated in the Salk vaccine program for first and second grade school children.

The Davis County Society held ten medical sessions in connection with an adult education program, and administered pre-school exams and ones for 4-H girls' and boys' athletic team members. Mahaska County Medical Society was co-sponsor for a crippled children's clinic, administered tuberculin patch tests and drew up a uniform fee schedule. A new 34-bed hospital was opened on January 17, 1956, in Wayne County.

A chapter of the Woman's Auxiliary was established during the year in Mahaska County and is now very active.

S. W. Corbin, M.D., *Councilor.*

Deputy Councilors:

E. F. Ritter, M.D., Appanoose
H. J. Gilfillan, M.D., Davis
R. G. Gillett, M.D., Keokuk
A. L. Yocum, M.D., Lucas
G. S. Atkinson, M.D., Mahaska
H. L. Bridgeman, M.D., Marion
D. N. Orelup, M.D., Monroe
P. D. McIntosh, M.D., Wapello
D. R. Ingraham, M.D., Wayne

TENTH DISTRICT

All county societies in the Tenth Councilor District, save Taylor, meet in conjunction with hospital staffs, and attendance at those meetings has been good. The sessions are monthly in most counties, but in some there is a summer recess.

Two resolutions from societies in this district were presented and accepted at the 1955 Annual Meeting of the ISMS House of Delegates: (1) asking for an investigation of the types of professional liability insurance that are available, especially of those providing group coverage; and (2) asking State Society sponsorship of an essay contest in conjunction with the Association of Physicians and Surgeons. Local prize funds were raised for that second project.

Nearly all physicians in the area attended more than one postgraduate medical course during the year.

All societies, perforce, participated in the Salk vaccine program, for they had been strongarmed by national feeling and by the Foundation for Infantile Paralysis. As a direct result some of them have decided to abstain from such participation in the future and to cancel their programs for immunizations that have been on a more or less temporary basis for years.

In this connection, one of the county societies has embarked upon a public information campaign, purchasing space in the local newspaper and buying time from the local radio station. It has thus presented its point of view to the public three times by each of those media, and it plans to continue. The public has been receptive to the program.

Physicians have promoted medical public relations individually. They have distributed American Cancer Society literature and reprints of certain Reader's Digest articles. They have promoted the sale of Blue Cross-Blue Shield insurance. (They find that a good time for approaching patients on this subject is just after they have had difficulty with one of the deceptive and barely legal policies.) And with their statements for services rendered, the doctors have sent their patients informative pamphlets prepared by their county societies on the general subject of surgical and medical care insurance.

Various members have been active in local service clubs such as Lions, Kiwanis, Rotary and chambers of commerce, and they have been in constant contact with their representatives and senators, both state and national, on matters of import to Medicine.

Some doctors have actively supported their local welfare people and the Welfare Directors' Association in their efforts to eliminate certain inequities in the "poor laws," specifically those dealing with legal settlement, A.D.C., commitment of tuberculosis patients, residence at sanatoria, and relief procedures. In addition to moral support, the doctors have contributed money.

It is felt that many welfare directors are not dealing altogether fairly with physicians, and that there is wide variance of payments from county to county.

Union County was host to a crippled children's clinic last September, and the member doctors closed their offices for part of the day either to attend or to help with that clinic. They find that such action is good public relations. Many physicians from the Tenth District attended the meeting of the Southwestern Iowa Medical Society.

All in all, it has been a good year.

H. J. Peggs, M.D., *Councilor.*

Deputy Councilors:

A. S. Bowers, M.D., Adair
J. C. Nolan, M.D., Adams
G. I. Armitage, M.D., Clarke
E. E. Gamet, M.D., Decatur
J. E. Evans, M.D., Madison
E. J. Watson, M.D., Ringgold
R. W. Boulden, M.D., Taylor
H. J. Peggs, M.D., Union
C. A. Trueblood, M.D., Warren

ELEVENTH DISTRICT

The medical societies in Cass, Montgomery, Page and Pottawattamie counties conducted ten monthly meetings during 1955, with a scientific program at each of them. Those in Audubon and Shelby counties hold combined society and hospital-staff meetings monthly, except Shelby designates four of these meetings as true county society meetings. The Harrison County Society, though it has no more than six active members, held five meetings during the year. Fremont and Mills counties had no society meetings during the year.

Several county societies arranged special scientific programs to which all of the physicians of the Eleventh Councilor District were invited. Montgomery County Society staged a one-day clinic program on May 26, Page County put on a special meeting in September, and Pottawattamie County sponsored the Iowa-Nebraska Medical Assembly, in March at Council Bluffs. All of those meetings were well attended.

All county medical societies in the Eleventh District cooperated in the Salk immunization program for first and second grade school children. The Cass county group voted to do no more clinic immunizations except for indigents to whom the State Department of Health supplies Salk vaccine, and the Montgomery County Society protested the anticipated plan for distribution of Salk vaccine by the State Department of Health.

The Shelby County Medical Society made a nominal charge for its polio vaccine inoculations and donated the receipts to the library fund at the county hospital. From moneys collected for other sorts of immunizations in former years, the Shelby doctors have purchased a tape transcribing machine and have subscribed to a lecture series on tape for use of the membership. They have also instituted an emergency call system during the past year.

In the more populous counties of the district, the Woman's Auxiliary has been especially active. The Cass County chapter contributed $500 toward the building of a new hospital wing, and assisted at the Salk vaccine clinic and the blood bank. The chapter in Montgomery County spent a day a month sewing for the Murphy Memorial Hospital, the Pottawattamie County ladies entertained wives of the visiting physicians at a program which they presented while the Iowa-Nebraska Medical Assembly was in session, and the chapters in Page and Shelby Counties engaged in similarly worthwhile projects.

On November 10, 1955, the Pottawattamie County Medical Society was host to the doctors of the Eleventh Councilor District at a dinner meeting in Council Bluffs, for the purpose of discussing proposed Blue Shield changes. Drs. Henning Mathiasen, of Council Bluffs, Frank McCarthy, of Sioux City, Paul Chesnut, of Winterset, and Tom D. Throckmorton, of Des Moines, all Blue Shield directors, and Mr. Wilbur Quinn and Mr. W. H. Sherin, of the Des Moines Blue Shield office, spoke at the meeting.

During the year, four doctors began or resumed practice in the District, and four went to practice elsewhere. There were no deaths.

CHARLES H. FLYNN, M.D., *Councilor.*

Deputy Councilors:

L. J. JENSEN, M.D., Audubon
ROSCOE M. NEEDLES, M.D., Cass
A. ROY WANAMAKER, M.D., Fremont
A. C. BERGSTROM, M.D., Harrison
M. L. SCHEFFEL, M.D., Mills
EDWARD L. CROXDALE, M.D., Montgomery
KENNETH GEE, M.D., Page
CHARLES D. EDWARDS, M.D., Pottawattamie
JOSEPH H. SPEARING, M.D., Shelby

Reports of Standing Committees

COMMITTEE ON LEGISLATION

The past year has been an active one for the Committee on Legislation. An effort has been made to strengthen the Committee's organization through the development of a better liaison with the Woman's Auxiliary and by keeping the county contact men better informed on legislative problems. The Committee has received excellent cooperation from the staff of the Iowa State Medical Society's office in achieving those objectives. The legislative contact man in each county now receives a copy each week of the AMA WASHINGTON LETTER, so that he may always have an up-to-date summary of the progress that important health legislation is making through Congress.

During the past year the Legislative Committee and the Public Relations Committee have held several joint meetings, and in all probability the programs of these two committees will be even more coordinated in the future. Cooperation between the two groups is necessary because of the close relationship between good public relations and an effective legislative program.

The work of the 1955 General Assembly was summarized in the supplemental report that the Legislative Committee made to the House of Delegates at last year's Annual Meeting.

Legislative problems at the national level are ever present. The bill that passed the House last session to provide cash disability benefits for disabled persons who have Social Security coverage is now before the Senate, and a series of public hearings is being held. The Legislative Committee has asked that the entire Social Security program be reviewed before consideration is given to expanding the program by providing disability coverage. This position is in keeping with the position assumed by the AMA. An effort will be made during this session of Congress to include physicians on a compulsory basis in the Social Security program. The Legislative Committee has endorsed the position of the AMA favoring voluntary participation, but opposing compulsory inclusion of doctors.

Medical care for the dependents of military personnel will receive considerable attention from Congress during this session. Provision of medical service through voluntary health insurance coverage is receiving favorable comment, and it is hoped that a program of this type will be enacted—one that would use the services of private physicians.

The Legislative Committee is maintaining communication with Iowa congressmen and senators in Washington, as has been the custom in past years. In March, a meeting was held in Washington at which representatives of the Legislative Committee discussed proposed health legislation with the Iowa delegation in Congress. The meeting was very successful, as had been the ones held in past years.

Because 1956 is an election year, special attention will be given to the senators and representatives in

the Iowa Legislature. Every effort is being made, however, to maintain close relationships between doctors and legislators by having the lawmakers invited to county medical society meetings and by having individual physicians improve their acquaintanceships with them. The maintenance of such contacts on a regular basis, rather than just during the legislative session, is strongly urged as a worthwhile activity for doctors to undertake. Legislative problems that will confront the ISMS during the 1957 session of the Legislature cannot be predicted at this time. It is very likely, however, that legislation will be introduced to change the make-up of the State Board of Health. Also, legislation in the field of chronic illness and in the field of mental health is anticipated.

The members of the Legislative Committee wish to express their appreciation to the many physicians in the ISMS who have participated in the legislative program of the Society. An expression of appreciation is also extended to the staff members who have worked so effectively and faithfully with the Committee.

F. C. Coleman, M.D., *Chairman*

NECROLOGY COMMITTEE

The following members of the Iowa State Medical Society died during 1955:

	Age
William B. Armstrong, Ames	64
Edward D. Beatty, Mallard	85
Herbert B. Brumer, St. Petersburg, Florida	63
Marvin W. Burleson, Dayton	41
Frank W. Dean, Council Bluffs	92
John C. Dennison, Bellevue	89
Joseph H. Gamet, Cedar Falls	50
John M. Griffin, Des Moines	80
Dell L. Grothaus, Delta	67
Hans Hansen, Logan	77
Christine E. Hill, Virginia Beach, Virginia	80
Albert P. Johnson, Sigourney	93
George M. Johnson, Oberlin, Ohio	79
Alexander A. Johnstone, Keokuk	57
Martin J. Joynt, LeMars	77
William A. Kauffman, Marshalltown	81
Lawrence E. Kelley, Des Moines	73
C. Smith Kirkegaard, Estherville	63
Robert R. Lenaghan, Clinton	57
Arthur R. Lynn, Marshalltown	72
Gerrit Maris, Sioux City	73
William Maris, Sioux Center	65
John T. McClintock, Iowa City	82
Robert F. Moerke, Burlington	48
Edward M. Myers, Boone	83
Frederick L. Nelson, Ottumwa	77
Raymond E. Peck, Davenport	78
John H. Romine, Webster City	44
Raymond A. Seiler, Blairstown	71
Harold F. Smith, Iowa City	58
Eber F. Stevenson, Waterloo	81
Harry A. Stribley, Dubuque	62
William V. Thornburg, Guthrie Center	75
Robert F. Throckmorton, Des Moines	86
Frank L. Vander Veer, Janesville	87
Gabriel S. Westly, Manly	69
Paul A. White, Davenport	71
Sherwood B. Zoller, Fredericksburg	74

(The Necrology Committee consists of the Councilors.)

MEDICO-LEGAL COMMITTEE

The Medico-Legal Committee has not had much to do during the past year. It has given some advice, but no large problems have been presented to it.

The Committee would like to recommend that the House of Delegates direct its Special Committee on Group Insurance to continue its careful consideration of group practice indemnity insurance for members of the State Society.

The Committee also suggests that some consideration be given to the ethics of prescribing by telephone and the legal responsibility resulting therefrom.

L. K. Meredith, M.D., *Chairman.*

COMMITTEE ON ARTICLES OF INCORPORATION AND BY-LAWS

Until late in January, 1956, no suggestions were submitted to the Committee for amendments or changes in the Articles of Incorporation and Bylaws.

Then, the Judicial Council transmitted to the Committee three proposed changes. Those suggestions, along with any other items coming to the attention of the Committee will be reviewed and presented in a supplemental report to the House of Delegates at its April, 1956, meeting.

A. B. Phillips, M.D., *Chairman.*

COMMITTEE ON MEDICAL SERVICE

The membership of the Committee on Medical Service consists of the chairmen of the subcommittees. Since the 1955 Annual Meeting, the Committee has met three times to discuss pertinent problems and, when necessary, has delegated work to particular subcommittees for further study. That latter course of action was adopted rather infrequently, for Dr. Coffin had expressed the wish that committee members' time should be conserved as much as possible.

The Committee received two resolutions from Labor dealing with (1) health and safety, and (2) surgical fees and service benefits. The resolutions were acknowledged and were referred to the Executive Council with the recommendation that a special committee of the State Society be appointed to meet with labor groups. That committee has been appointed, but Labor has not as yet requested a joint conference.

With the authorization of the Committee, Dr. R. C. Gutch and Mr. Donald L. Taylor attended an 11-state Veterans Conference in Indianapolis on September 27, 1955. It was an informative conference, and it took no direct action on the matters that it considered.

Before each of the Committee's meetings, the proposed changes in the Blue Shield Plan were discussed by Dr. Martin I. Olsen and Mr. W. H. Sherin. Almost all of the December meeting was given over to a discussion of Blue Shield's attempting to provide prepayment benefits for the dependents of military personnel. The Committee has concluded that it is better to provide this service through voluntary prepayment, rather than to permit the development of large hospital and medical facilities on military installations and the drafting of doctors more or less entirely for the purpose of caring for those dependents at government expense.

Mr. Sherin was authorized to make a tentative offer of the present $3,600 contract to cover dependents of enlisted personnel, and of the proposed $6,000 con-

tract (when and if it becomes available) to cover the dependents of officer personnel. Diagnostic benefits, if provided, must be on a separate contract, with certain protective deductible and diagnostic features on a "cost-plus" basis.

No further negotiations were to be consummated without consultation with the Committee on Medical Service and, ultimately, with the Executive Council of the ISMS.

C. V. EDWARDS, M.D., *Chairman.*

SUBCOMMITTEE ON PREPAYMENT MEDICAL CARE

The Subcommittee on Prepayment Medical Care had no meetings during 1955. However, as chairman of the Subcommittee, I attended several meetings of the Committee on Medical Services as representative of the group.

BLUE SHIELD PROGRAM

During 1955, Iowa Medical Service (Blue Shield) maintained a fairly steady growth, although the rate was less rapid than during preceding years. Membership increased by 45,934, so that at the close of the year there were 530,169 members.

The earned income for the year was $6,267,406.56, as compared with $5,380,655.18 for 1954. Payments for physicians' services totaled $4,982,397.93, an increase of $790,377.87 over the amount paid by the Plan in 1954. The reserve for incurred and unreported claims for physicians' services was increased $64,300.00 during the year, and the percentage of claims incurred to earned income was 80.5 per cent for the year. For the year 1954, the ratio was 79.6 per cent, so the utilization was just a little higher during the year 1955 than in the previous year.

	1955	*1954*
Members	530,169	484,235
Earned Income	$6,267,406.56	$5,380,655.18
Payments for Physicians' Services	$4,982,397.93	$4,192,020.06
Percentage of Claims Incurred to Earned Income	80.5%	79.6%

As a result of the nearly expected utilization, we were able to add $313,370.33 to the reserve for contingencies, and in addition, $193,000.00 could be added to the over-all surplus of the Plan for protection to the subscribers.

Total reserves now are equivalent to nearly four months' average claims paid to doctors, plus the operating expenses of the Plan. This is considered slightly above the minimum amount necessary to assure financial stability to a Plan the size of ours. It would appear that the contract benefits and rates charged for them are very nearly in balance and that no additional services can be incorporated in the present contract at this time. Normally, as a Plan grows older, the utilization tends to show some increase from year to year.

In the light of our past experience, we enjoyed a successful year financially and are providing the public and the doctors a service that is financially sound and provides a very respectable return of benefits for the charges that are being assessed.

The administrative staff has had consistently increasing responsibilities and has met them well. The staff is headed by Mr. Woodrow H. Sherin, executive director; Mr. T. J. Garbett, assistant executive director and director of claims; Mr. W. Bryan Recknor, administrative assistant; Daniel W. Coughlan, M.D., medical director and consultant; Mrs. Eleanor Roberts, supervisor of the Accounting Department; and Mr. Wilbur R. Quinn, director of physician relations. In addition to the administrative staff, there are 33 full-time employees.

The processing and payment of claims constitutes the major and certainly the most difficult function of the office. An average of 14,140 Doctor's Service Report forms are received and serviced each month. Of course, in some instances Blue Shield does not assume liability for the services reported. However, it did make payment for 163,621 services reported by doctors throughout the state last year. The work of the Claims Department has been consistently current during the year, with the result that doctors have been paid promptly for the services they reported. The semi-monthly claim check has proved an advantageous system of payment from the standpoints both of the participating doctors and the Claims Department.

The year 1955 has been one of increasing activity for the Board of Directors, the Medical Advisory Committee and the other committees of the Board of Directors. Following the Annual Meeting of the Iowa State Medical Society, immediate steps were taken to implement the many suggestions that had been made by the House of Delegates.

The Medical Advisory Committee has been most active in trying to develop revised fee schedules and benefit changes for a new contract to be made available to families having incomes between $3,600 and $6,000 per year. In order to develop a fully realistic fee schedule, the Committee requested each of the organized specialty groups and other organizations of doctors to submit suggestions as regards both the devising of a new contract and the eliminating of inequities in the present one. The Committee has had several meetings and is making progress toward the development of new contracts. It anticipates drawing up a final report to the Blue Shield Board in sufficient time for it to be reviewed by the county medical societies prior to the 1956 Annual Meeting of the Iowa State Medical Society.

In July, 1955, a Joint Blue Cross-Blue Shield Liaison Committee was appointed. It consists of six board members from Blue Shield and three board members from each of the two Blue Cross Plans, and its functions are to maintain cooperation between the respective boards of directors, to reach a meeting of minds about contract changes in Blue Cross and Blue Shield contracts if possible, and to iron out various differences for future contracts and sales efforts.

The effect of the hospital-doctor controversy on Blue Cross and Blue Shield benefits was discussed at great length by this Joint Committee. It has been very active in trying to find a solution for the problem of financing diagnostic medical services. Those procedures presently are covered to various extents in both Blue Cross and Blue Shield contracts, and the Joint Committee is trying to work out a program under which subscribers and members would suffer no loss in benefits and pay no higher rates for those services under Blue Shield as soon as final court decisions and other actions require such a change. Complete agreement has not as yet been reached, but it is hoped that a method will be developed whereby all subscribers either to Blue Cross or to Blue Cross and Blue Shield

will be completely protected for diagnostic professional services in the event of any change in the method of billing.

During the year, the local Plan has been asked to participate in several national enrollments involving large numbers of employees of some of the biggest employers in the country. It is virtually impossible for your Plan to engage in that type of business, for the specifications very rarely correspond with the ones in its own contracts.

So as to provide the measure of uniformity necessary for national enrollment procedures, all of the Blue Shield Plans are making an effort to develop a uniform level of income service benefits, rather than uniform fee schedules. A certain degree of flexibility is going to be necessary in Blue Shield programs in order to meet the demands made by employers and employees in their search for a prepaid medical plan for the middle-income group of individuals and families.

A real effort is being made by your Blue Shield Plans to continue as the leaders in providing benefits to the public. We hope to maintain a Plan which can be the yardstick for measuring all other coverages.

Martin I. Olsen, M.D., *President.*
Iowa Medical Service.

SUBCOMMITTEE ON VETERANS' AFFAIRS

It has been a quiet year for the Subcommittee on Veterans' Affairs. Apparently the AMA has relaxed its attack upon the VA's providing treatment for non-service-connected disabilities.

On September 27, 1955, a Veterans Forum was held at Indianapolis, Indiana. It was a conference of representatives from the state medical associations, state dental associations, state hospital associations and the American Legion departments of Illinois, Iowa, Indiana, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, Pennsylvania and Wisconsin. The Iowa delegation consisted of R. C. Gutch, M.D., chairman of the ISMS Subcommittee on Veterans' Affairs, Mr. Donald L. Taylor, executive secretary of the ISMS, Mr. W. B. Nugent, of the Des Moines VA installation, Mr. C. T. Jackson, of the VA domiciliary at Clinton, Mr. J. L. Jack, of the VA hospital at Knoxville, and J. Don McPike, D.D.S., of Muscatine, representing the Iowa State Dental Association.

The conference was sponsored by a joint liaison committee on veterans' affairs of the Indiana State Medical Association, the Indiana State Dental Association, the Indiana Hospital Association and the Indiana Department of the American Legion, and its purpose, like that of gatherings held annually since 1952, was to let interested groups from the 11 states hear and discuss authentic information on the medical and dental care of the nation's veterans. The conference was intended to be no more than informative, and it took no action.

The chairman of the meeting, Norman Bocher, M.D., of Indianapolis, a member of the American Legion's Rehabilitation Committee, sounded the keynote. "When a meeting is predicated on the philosophy that when well informed men of good will sit down together in honest discussion," he declared, "almost any problem can be put into proper perspective."

The representatives of the ISMS got the impression that the purpose of the meeting was to make peace between the AMA and the American Legion.

As has been stated on previous occasions, it is probable that politics controls the Veterans Administration. The following passage appeared in NEWSWEEK: "Congressmen have put the heat on VA officials who planned to save money by closing up little-used, understaffed hospitals in remote parts of Texas and North Dakota. The VA has been forced to back down, even though newer, more centrally located hospitals have been opened."

In 1956, no fewer than 33 of the 48 state governors were listed as members of the American Legion, and in the 84th Congress 295 members were listed as Legionnaires.

Some construction costs of the VA hospitals are very high. For one of them, as indicated on page 345 of the March 24, 1955, report entitled OPERATIONS OF VETERANS ADMINISTRATION HOSPITAL AND MEDICAL PROGRAM, the cost was $41,197.52 per bed, and on page 347 of the same report the average patient-per-diem cost for the calendar year 1954 is stated as having been $23,569.

In ending, I should like to suggest that physicians who are interested in reducing some of the VA's expenditures should talk with their U. S. senators and representatives.

R. C. Gutch, M.D., *Chairman.*

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education and Hospitals held three meetings during 1955. It was decided that a calendar of future postgraduate meetings should be published each month in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, and that feature was inaugurated in the April, 1955, issue. The Committee also requested that the bulletins from the Society's central office be utilized as a means of informing members of postgraduate meetings.

The Committee is investigating a proposed group of postgraduate education programs which could be televised over a network of television stations including WOI-TV, Ames; KCRG-TV, Cedar Rapids; KGLO-TV, Mason City; WHBF, Rock Island, Illinois; and WOW-TV, Omaha, Nebraska. Under the plan that has been proposed, scientific lectures and demonstrations could be televised during the hours when a television station is normally off the air.

The Boone County Medical Society will hold a postgraduate education program on a trial basis, inviting doctors from the SUI College of Medicine to come and confer with Boone county doctors for teaching purposes. It was the Committee's opinion that that type of postgraduate education program was preferable to a scheme that would make the SUI men available on a consultation basis.

A questionnaire sent out by the AMA relating to the private practices of the absolute and geographic full-time faculty members of the SUI College of Medicine was reviewed and completed by the Committee. The information will not be released to the public. Instead, it is intended for the exclusive use of the AMA's Committee on Medical and Related Service, a division of its Council on Medical Service, in its evaluation of material already received in regard to medical school organization and operation.

The Committee on Medical Education and Hospitals was unanimous in its belief that sufficient funds

should be appropriated by the state legislature to compensate the faculty members of the SUI College of Medicine, thus making it unnecessary for them to conduct private practices that might in any way interfere with their principal responsibility, which consists of teaching, research and care of indigent patients.

Dr. Norman B. Nelson, dean of the SUI College of Medicine, met with the Committee once during the year to discuss the private practice of the absolute and geographic full-time faculty members at Iowa City. He reported the following data. The SUI College of Medicine has its own teaching hospital of almost 1,000 beds, of which 124 are private and the rest state-supported. In many ways, the SUI College of Medicine is the consultation center for the state of Iowa. A fleet of 22 ambulances maintained by state appropriation transports patients from all over the state to the teaching hospital. Approximately 95 per cent of the private patients, and, with rare exceptions, all of the non-private patients are referred to the staff by private practitioners.

The Committee developed a statement of policy concerning this matter, containing several recommendations for the consideration of the AMA for approval by the Executive Council of the ISMS.

A special subcommittee of the Committee on Medical Education and Hospitals was appointed for the purpose of reviewing the functions of the Joint Commission on Accreditation of Hospitals. The report of that subcommittee is to be found in this HANDBOOK.

L. F. HILL, M.D., *Chairman.*

SUBCOMMITTEE ON HOSPITAL ACCREDITATION COMMISSION

The Subcommittee was appointed in November, 1955, to formulate recommendations for submission to an AMA committee that is reviewing the functions of the Joint Commission on Accreditation of Hospitals. Its report, formulated at a meeting held on December 17, 1955, and subsequently approved by the Executive Council of the Iowa State Medical Society, contained the following constructive suggestions:

1. The AMA members of the Joint Commission on Accreditation of Hospitals should report and be responsible to the House of Delegates of the AMA.

2. Steps should be taken to correct the impression currently being given by the Joint Commission that the board of trustees of a hospital are both morally and legally responsible for everything that takes place in the hospital, including the work of the medical staff. The work of the medical staff is its own legal and moral responsibility, once the trustees have appointed the medical staff on a sound basis.

3. Steps should be taken to develop and promote the concept that physicians should be appointed to membership on boards of trustees of hospitals so as to insure a satisfactory working relationship between trustees and medical staff.

4. The concept should be promoted that the medical staff is self-governing and that the tissue committee, the records committee and the medical audit committee are responsible directly and indirectly to the medical staff, rather than to the administrator and the trustees.

5. The Accreditation Commission should publish a manual outlining in detail its objectives, method of operation and organization.

6. The director of the Commission should be primarily an executive officer, and not an interpreter of policy.

7. At the present time, the hospital administrator receives the only copy of the Joint Commission's survey report, and the ISMS Subcommittee feels that the chief of the medical staff should receive both a copy of the survey report and copies of all correspondence between the Joint Commission and the hospital.

RALPH L. WICKS, *Chairman.*

SUBCOMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

By reason of the hospital-doctor litigation, the Subcommittee on Hospital and Professional Relations has not had occasion to undertake any new projects. The members have stood ready to serve whenever needed.

WALTER D. ABBOTT, M.D., *Chairman.*

GRIEVANCE COMMITTEE

During 1955 the Grievance Committee received 22 complaints. One of them is in the preliminary stage of investigation and has not yet been considered by the Committee. Fourteen cases have been closed, one case has been tabled because of a pending lawsuit, and six remain under active negotiation and consideration.

In addition, 21 cases were held over from previous years, of which 19 have been settled during 1955 and 2 remain under active consideration.

The Committee met nine times during 1955, with an average attendance of 70 per cent of members.

Most of the complaints received by the Grievance Committee are the result of attempts by physicians to collect overdue accounts. More and more patients confronted by demands or suits for collection of accounts write hastily to the Committee accusing their doctor of charging unreasonable fees. Very often they include accusations of error in diagnosis, charges of negligence in care of the patient and, occasionally, threats of malpractice suits. An occasional complaint stems from a thoughtless remark that some physician has let drop concerning the management of a case by another. Other complaints arise from the failure of physicians to make adequate explanations of the procedures that must be carried out for the best management of their cases.

In an attempt to lessen the frequency of these complaints, the Grievance Committee advises each doctor first to discuss his fees fully and frankly with his patient, and afterward to send a completely itemized bill. Above all things, he should use great care in screening the accounts that he is thinking of turning over to a collection agency.

It would be well for doctors to acquaint themselves thoroughly with the methods and approaches used by collection agencies. It is unwise for them to let their secretaries or the representatives of professional accounting firms have the privilege of selecting accounts for collection. The individual physician should study them and make the choices himself. And he should be wary of forcing collection in those instances in which malpractice suits might conceivably result.

Doctors involved in complaints have, almost without exception, cooperated fully with the Grievance Committee. This response has been most welcome and has helped ease the burden of the group's work. Requests

issued by the Committee to physicians involved in complaints must, of necessity, be quite formal. Its deliberations are as impartial as they can be made, and all complaints are reviewed on their merits.

The Grievance Committee has striven conscientiously to improve public relations. The members believe that they have had a considerable measure of success in settling disputes between patients and physicians, but there is an occasional case which they have been unable to settle.

R. M. Dahlquist, M.D., *Secretary.*

COMMITTEE ON PUBLIC HEALTH

The Committee on Public Health got together on October 23, 1955, to discuss the past efforts and projects of its nine subcommittees and to plan future activities.

The Committee looks forward to working more closely with various lay organizations such as the Farm Bureau, the Iowa Extension Service and the Iowa Engineering Society, for they all have considerable interest in public health. One project of interest is the development of a program for rural sanitation as regards sewage and water supply.

The Diabetes Detection Drive had been referred to the Committee for recommendations. After some study and discussion, the Committee suggested that the profession should handle the program at the county-society level, rather than attempt a state-wide program.

Another problem was the outgrowth of a request from Labor to support its recommendation for a federal poultry inspection law similar to the federal meat inspection program. This project was referred to a special committee for thorough study.

Subcommittee chairmen have submitted detailed reports covering their groups' activities for the year. The Subcommittees on Rural Health, Mental Health and Polio have been particularly active.

E. A. Larsen, M.D., *Chairman.*

SUBCOMMITTEE ON CANCER

The Subcommittee on Cancer met once last year to discuss past projects and future plans.

In cooperation with the American College of Surgeons and the American Cancer Society, the Subcommittee is studying the matter of establishing a tumor registry. It was advised to approach SUI about the possibility of setting up a coordinated registry at Iowa City. Duplicate copies of local information would be sent to the university.

Another recommendation dealt with operation and financing of tumor clinics throughout the state. Because of the fact that most tumor clinics aren't using all of the funds appropriated to them for operating purposes, the Subcommittee decided to effect slight reductions in those appropriations. Other than that, the clinics will continue operation as in the past.

The Subcommittee recommends that hospital staffs and local medical societies throughout the state secure kinescopes of closed-circuit color programs on cancer for showing at their meetings. It is felt that these kinescopes should be shown to as many doctors and at as many hospitals as possible, for they are an educational tool of much value.

E. G. Zimmerer, M.D., *Chairman.*

SUBCOMMITTEE ON CHRONIC ILLNESS

With the approval of the president of the Iowa State Medical Society, the Subcommittee on Chronic Illness helped to organize and participated in a refresher course for the members of the Iowa Nursing Home Association at Drake University this past summer. The members, representing the nursing homes in Iowa, not only were grateful for our cooperation, but were also hopeful that the State Medical Society would continue giving them its cooperation.

The need for nursing homes is well recognized. Outside of Des Moines, there are a number of nursing homes that are licensed neither by the State Department of Health nor by local health officers. Only licensed homes are inspected periodically, and few have any liaison with local physicians. The State Department of Health has only two people who inspect and accredit those facilities, and they devote only part of their time to that work. The standards for nursing homes that have been set up in the state of Iowa are lower than those advocated by the Iowa Nursing Home Association, by the State Department of Health and by the Subcommittee on Chronic Illness of the Iowa State Medical Society. At a joint meeting of the AMA and the American Association of Nursing Homes, it was decided that the highest standards could best be attained through cooperation between the nursing homes and the medical profession at the state level—i.e., with the state medical societies. If the standards of nursing homes can be improved and an adequate means of licensing or accrediting can be arranged, then the nursing homes can become eligible for obtaining loans under the Small Business Administration and Public Law 432 of the 83rd Congress. That eligibility would be an added impetus for improved patient care.

In the State of Iowa, each county has the legal power to set up its own regulations pertaining to licensing and inspecting nursing homes. The city of Des Moines, on July 7, 1947, passed Ordinance No. 4902, which set up requirements for licensing, inspecting and regulating nursing homes. That ordinance has worked well and could be used as a pattern for other communities. The Subcommittee on Chronic Illness suggests that each county medical society appoint a committee to cooperate with the State Health Department, and appoint a local health officer to consider measures necessary for adequate control of local nursing homes. Such committees could visit the nursing homes in their communities periodically, not only so that the members could inspect those institutions but also to permit them to become acquainted with the operators and give them instructions.

If the House of Delegates of the Iowa State Medical Society agrees that the medical profession in Iowa should cooperate with the Iowa Nursing Home Association and should seek the establishment and maintenance of more exacting standards for nursing homes, the members of the Subcommittee on Chronic Illness will be glad to assist the State Department of Health in (1) arriving at mutually exclusive definitions of nursing homes, convalescent homes, domiciliary homes, and rest and care homes, and (2) setting up minimum standards for them that would be acceptable to all of the groups concerned.

In their discussions with the members of the Nursing Home Association, the members of the Subcommittee have come to recognize some of the owners' problems, and so that other physicians may become similarly cognizant of those difficulties, they have prepared a paper entitled "The Doctor and the Nursing

Home" for publication in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY.

W. D. PAUL, M.D., *Chairman.*

SUBCOMMITTEE ON INDUSTRIAL HEALTH

Iowa has long been recognized as the leading agricultural state, but recently, when its industrial income for the first time surpassed its income from the sale of farm products, we came to see its potentialities for expansion as a manufacturing one. A considerable share of our fellow citizens already are factory workers, employed for the most part by small firms, and as the diversification of "big business" continues, we can see no reason for expecting the trend to change.

In other parts of our nation there are large numbers of giant industrial plants which require the services of at least one physician each, and the establishment, this past year, of a certification board for industrial medicine is evidence of the fact that such practice has come of age as a specialty. In this state, however, the plants are small and rather widely scattered, with the result that there is widespread need for physicians to devote no more than parts of their time to the job-connected illnesses and injuries of employees of particular plants. Thus it has appeared essential that the Subcommittee on Industrial Health of the Iowa State Medical Society should solicit the opinions of Iowa doctors about the type and quality of medical service that they can offer to the industries, that it should attempt to formulate compromises wherever those opinions were in disagreement, and that it should then act as spokesman for Iowa Medicine as regards problems of this sort.

At the outset, last year, the Subcommittee decided that its first step should be to discover the potentials, industrially speaking, possessed by Iowa doctors. For that purpose, it sent an industrial medicine questionnaire letter to all members of the Society. The excellent response to that letter was reported at the 1955 Annual Meeting. Subsequently, a statistical summary of the replies appeared in the June, 1955, JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, and a review of the comments, inquiries and criticisms that the letter had provoked was published in the July issue of the JOURNAL.

Many of those comments that doctors put down on their questionnaires before they returned them criticized the methods used by the employer, the insurance carrier and the Industrial Commissioner in their dealings with physicians. Others of the comments showed that some doctors see no disagreeable features in such dealings.

1. Many doctors expressed the belief that industrial medicine interferes with the patient's free choice of physician.

2. Many of them said they thought it encroached upon private practice and constituted a step toward socialized medicine.

3. Many doctors said they were favorably impressed with industrial medicine, and wished either to enter upon or to increase their part-time industrial work.

From the replies to the questionnaire and from other studies, the Subcommittee has received the impression that a great many doctors think of industrial work as merely the care of compensable injuries and have a poor concept of the scope of a broad program in occupational health such as has been outlined by the AMA. Many physicians, both generalists and specialists, have done little to acquaint themselves in that field. If there are inherent dangers in this relatively new field of endeavor, we believe that every doctor should undertake to inform himself about all of its aspects so as to avoid starting off on the wrong foot. It is clear, moreover, that the Subcommittee, rather than attempting immediately to formulate a consensus of Iowa doctors' current thoughts regarding industrial medicine, should limit itself for the time being to the performance of an informative and educative function.

To that end, the Subcommittee has several accomplishments to report. The manual entitled "Standard Procedures for the Industrial Nurse" was mailed to all members of the Society, to industries and to industrial nurses. The introductory section of that booklet contains an outline of a good industrial medicine program. Further, it describes the nurse's responsibility to the employee, to management, to the industrial physician, to the family physician, to the insurance carrier, to the industrial commission, etc. It is hoped that that portion of the manual, along with the letters that have been sent to private physicians and to employers, has helped clarify the important part that each member of the team must take in the program at each industrial plant. It was emphasized that the instructions contained in the manual should be reviewed and amended by individual physicians, and then signed and given to the industrial nurse to serve as standing orders regarding first aid for factory personnel.

When the Subcommittee considered the possibility of holding conferences on industrial health problems in various parts of the state, it was decided that best results could be achieved through meetings sponsored by medical societies in individual counties. As a trial, such a gathering was held in Des Moines County in September, 1955. It was sponsored by the Medical Society and the Burlington Chamber of Commerce, and invitations were sent to doctors throughout southeastern Iowa, as well as to the employers in the Burlington area. The program began with a tour of a local industry. Next, there was a panel discussion on "The Responsibilities of the Physician and of the Employer in the Field of Occupational Health." Then there were talks by an industrial medical director, a part-time industrial physician and by a representative of an insurance carrier. There was a question-and-answer period at the end of the afternoon meeting, and the discussion was resumed after dinner. In was a good, informative meeting, the attendance was good so far as the lay people were concerned, and considerable interest was manifested by the employers. The only disappointing feature of the affair was that physicians stayed away in droves.

By means of that trial meeting, the Subcommittee feels that it has learned how similar gatherings in others of the industrialized counties of the state should be conducted, and plans are being made for holding them during the coming year.

The Subcommittee felt that as a follow-up to the questionnaire, an open discussion of the difficult and controversial issues relative to occupational health in small plants should be arranged for. When requested to do so, the officers and the program committee of the State Society secured authoritative speakers and arranged a panel discussion on this subject to be presented to a joint session of the Medical and Surgical Sections at the 1956 Annual Meeting. A question-and-

answer period is to be a feature of the panel discussion, several papers on industrial-health subjects are to be delivered at others of the Annual Meeting sessions, and it is felt that the doctors who attend will come away with a much clarified picture of the situation.

The chairman of the Subcommittee recently attended the annual meeting of State Industrial Committee Chairmen, held with the AMA Council on Occupational Health. That meeting, held in Detroit, was followed by a two-day Congress on Industrial Health. Panel discussions were conducted on three major subjects: "Occupational Medicine in Industrial Relations," "Medicine's Responsibilities in the Automotive Age," and "Absence From Work Due to Nonoccupational Illness and Injury." A report of this meeting has been submitted to the Board of Trustees of the Iowa State Medical Society.

Industrial Medicine is well established as a specialty. Labor and management, primarily of large corporations, have benefitted from it. But over 80 per cent of the working people of America are found in small employment groups. For them, either no medical program exists, or at most there are inadequate ones. The problem is nation-wide. Iowa is representative of this latter type of situation. We have a job to do.

C. J. Lohmann, M.D., *Chairman.*

SUBCOMMITTEE ON MENTAL HEALTH

Since the 1955 Annual Meeting, the Subcommittee on Mental Health has met three times. Its major effort has been directed toward the selection of projects that will implement its recommendations for the improvement of treatment given mental patients in Iowa. Consultants to the Subcommittee have been Dr. Daniel Blain, medical director of the American Psychiatric Association, Washington, D. C., and Dr. Charles C. Graves, until recently director of state mental hospitals in Iowa, and now clinical director of teaching, training and research, State Hospital, Marlboro, New Jersey. Dr. Paul Kersten, a Fort Dodge psychiatrist, has attended all three meetings as a visitor and has made substantial contributions to the deliberations of the Subcommittee.

The Subcommittee is definitely opposed to any enlargement of county-home facilities to care for the mentally ill, unless the individual county can provide adequate staff to furnish physical and medical supervision for proper treatment.

The Subcommittee recommends that steps be taken immediately to institute a training and research program through the assistance of the SUI College of Medicine, and gradually to inaugurate better treatment facilities at our state mental hospitals. Many patients in our mental hospitals never have a chance to get well because of the overcrowding and understaffing of the hospitals. If prompt and proper treatment were available, many of them could be rehabilitated and returned to their home communities and to their jobs.

Many states have substantially improved their treatment of mental patients. For that accomplishment, they needed an enlightened public. The Subcommittee believes that a non-political citizens' committee should be developed to study conditions as they now exist and to make recommendations for improvements. For this purpose, the Subcommittee recommends that an outside survey team be employed to make and to submit recommendations to the citizens' committee.

The Subcommittee made many recommendations to the Executive Council of the ISMS on January 19, 1956.

Dr. Herbert C. Merillat represented the Subcommittee at the national mental health meeting in Chicago on November 18 and 19, 1955.

John I. Marker, M.D., *Chairman.*

SUBCOMMITTEE ON POLIO

At a meeting held in Des Moines on February 10, 1955, it was decided that first and second grade pupils in all parochial and public schools, plus the placebo children of the 1954 Field Test Program, should be given the Salk vaccine. It was suggested that all vaccine not used in making those inoculations be made available through the usual drug channels to the doctors of the state.

Each county medical society was requested to consider the matter at its next regular meeting and report to the State Board of Health. The program, if accepted, was to be carried out by each county medical society.

On June 22, 1955, the Subcommittee met in Des Moines with the State Board of Health and representatives of the State Department of Health. Additional information which had been obtained relative to the polio prevention program was discussed. At that time most of the counties had given the first shots, and some of them had given the second. No ill effects had been reported to the State Department of Health. It was then decided by the Subcommittee that because the polio season was approaching, the first shots should be given to no more children for the time being. Children who had received their first shots, however, might be given second Salk vaccine shots, and booster shots might be given those who had received second shots at a previous time.

It was also suggested that other immunizations be given only to children under six months of age and that routine boosters should be administered to patients who possibly had been exposed to tetanus.

At a meeting held in Des Moines on July 1, 1955, the Subcommittee decided to suggest that although Dr. Heeren had been told the vaccine for second-round Salk shots would arrive sometime in July, the inoculations could be made after school sessions resumed in those counties where it was difficult or impossible to assemble children earlier. Jasper and Calhoun Counties had already given their second-round shots.

On August 19, 1955, at a meeting which the Subcommittee held in Des Moines with members of the State Board of Health and the Governor's Committee on Salk Vaccine, a member of the United States Department of Health was present. Matters relative to the use of the material given by the federal government for this program were discussed, and it was decided that the Board of Health should handle all funds and that the counties should be supplied their percentages of the vaccine as they applied for them.

At a meeting held on October 10, 1955, the matter of the purchase and distribution required consideration because of additional information that had been received from the federal government. It was decided that the State Board of Health should purchase 20 per cent of Iowa's allotment of vaccine for use in inoculating children in the priority age group in state institutions, in private orphanages, and in public vaccination programs set up by local governments and/or

county medical societies. The remaining 80 per cent of Iowa's allotment, it was agreed, should be made available for distribution through the usual commercial channels to the physicians of the state. A program was worked out which, it was felt, would be satisfactory to the druggist, to the physician and to the patient.

On October 23, 1955, a meeting was held by the Committee on Public Health, of which the Subcommittee on Polio is a part, simply for the oral reporting to the full Committee of the Subcommittee's activities up to that time.

During the past year, the various schools have carried out their inoculation programs, and there has been considerable Salk vaccine available through the usual drug channels.

R. H. McBRIDE, M.D., *Chairman.*

SUBCOMMITTEE ON RURAL HEALTH

The activities of the Rural Health Subcommittee have been highly diversified during the past year.

On May 14, 1955, working in association with the Committee on Public Relations and the Subcommittee on Medical Education and Hospitals, the Subcommittee on Rural Health developed and presented the Senior Medical Student Day program at Iowa City. It was the first such occasion ever sponsored by the Iowa State Medical Society, and the students received it with great enthusiasm.

All 11 members of the Subcommittee have been active in promoting the preceptorship program. To increase their effectiveness, however, they felt that it was essential to designate a few of their number to pay special attention to preceptorships. Drs. R. S. Jaggard, J. E. Blumgren and D. G. Sattler served in that capacity, and working in close cooperation with the preceptorship committee at the SUI College of Medicine and its chairman, Dr. Stuart C. Cullen, they have achieved a great deal in enabling students to get maximum benefit from their field training.

One of the important reasons for the success of the program in Iowa is that satisfactory completion of a preceptorship has been made one of the requirements for graduation from the SUI College of Medicine. As far as can be determined, ours is thus far the only medical school in the United States that has established such a requirement.

Both the student preceptees and the physician preceptors have been extremely enthusiastic about the value of the program, as is evidenced by the questionnaires returned by the participants. Noteworthy is the fact that for the first time since the program's inception, *requests from physicians for preceptees now outnumber the available students.*

"The Senior Medical Student," a portrayal of the daily life of a student preceptee was one of the most popular programs in the "Medical Dairy" television series that is currently being produced by the State Medical Society. In addition, the newspapers over the state have given the preceptorship scheme excellent publicity. Late last summer, the DES MOINES SUNDAY REGISTER carried an interesting feature article on one of the preceptorships in the state. That the Iowa program has been successful is evidenced by the interest that the AMA has shown in securing information on how the program here has been conducted.

Soon, the physicians who have served as preceptors for two or more years are to receive award certificates in recognition of their service. It is planned, furthermore, to award special certificates at the end of five years' service as participants become eligible.

In May, 1956, the Subcommittee on Rural Health plans to hold an orientation course for preceptors in each of the eleven councilor districts. It is felt that such meetings will further strengthen the preceptorship program, as well as afford the Subcommittee an opportunity to gather suggestions from the participating physicians.

During the year, the Rural Health Subcommittee has developed a strong liaison in matters of health with the Iowa Farm Bureau, the Iowa State College Extension Service, the State Department of Health, the Iowa Health Council and the SUI Department of Agricultural Medicine. All those organizations are vitally interested in the health and well being of the rural population of the state. Two meetings with representatives of those groups were held during 1955, the first on August 10 and the second on October 5. Mr. Aubrey Gates, field director for the AMA Council on Rural Health, was a guest at the August meeting, and the gathering was well covered by press, radio and television. Mr. Gates gave the conference much impetus, showing the need for close cooperation between the organizations that were represented at it. A thorough evaluation of rural health problems was made at the August meeting and was continued at the October one. A few of the many problems discussed are: (1) the control of disease transmitted from animals to man and vice versa; (2) prevention of toxic reactions from chemicals and hormones used on the farm; (3) the problems of allergy (the most frequent cause of farmers' premature retirement); (4) the need for improved sanitation on the farm; (5) the necessity for every family's having a family physician; and (6) the important need for wider citizen participation in voluntary prepayment insurance.

Possibly one of the most important subjects discussed was the prevention of farm accidents. In 1954, vital statistics reveal, 391 farm people in Iowa died accidental deaths, the majority occurring on the farm itself, and the average age of the victims was slightly under 50 years. It is worthy to relate that the Iowa Farm Bureau has appointed a representative in each four-mile district in the state to report all farm accidents, the manner of their occurrence, the factors involved and the means by which they might have been prevented. From such studies, much worthwhile data should be forthcoming. It is urged that all members of the State Medical Society cooperate with the Farm Bureau in these accident investigations.

It is the hope of the Subcommittee that a medical society member will be chosen in each county of the state to act as liaison between the medical profession and local lay groups interested in the health problems of rural people. These groups often complain that they have no one to whom to turn for information, and that they have no source from which to get speakers on health topics.

The placement of physicians in the areas of the state where they are needed has continued throughout the year. Many new physicians have found locations directly or indirectly through the efforts of the Placement Bureau of the State Medical Society. It is encouraging to know that at present only five towns of over 1,000 population are without the local services of a doctor of medicine. Furthermore, surveys

show that no community nor family in the state is more than 15 miles removed from a physician. The Subcommittee, in all its contacts, has stressed the slogan "Not how many miles, but how many minutes removed from a physician."

The Subcommittee on Rural Health wishes to commend Mr. Wilbur R. Quinn, of the State Medical Society's staff, for the great help he has given it in its work.

S. P. Leinbach, M.D., *Chairman.*

SUBCOMMITTEE ON MATERNAL AND CHILD HEALTH

At the ISMS headquarters office in Des Moines in February, the Subcommittee on Maternal and Child Health had its only meeting of the year. A thorough review of adoption procedures was the major topic under consideration. The great demand for children available for adoption results in considerable misunderstanding among social welfare agencies, the legal profession, the medical profession and the general public.

In 1954 there were 1,244 illegitimate children born in Iowa, and in 1955 the number was 1,380. Less than half go through an adoption agency, and half are taken care of by families or by other means. So that there may be a better understanding of the problem, a liaison committee is in process of being formed, including representatives of the medical profession, the legal profession, the State Department of Health and the State Department of Social Welfare.

The Subcommittee is also interested in the work being done by the Division of Special Education of the State Department of Public Instruction to detect hearing defects among children of school age. The project is under the guidance of Dr. Dean M. Lierle, of the SUI College of Medicine.

Another project of considerable interest to our Subcommittee is the campaign to reduce the accident rate among children. Other interested groups are the Iowa Pediatric Society and the State Department of Health.

The care of prematures was discussed, and helpful information on this subject will be forwarded to all interested persons in the future.

O. A. Stauch, M.D., *Chairman.*

SUBCOMMITTEE ON REHABILITATION

The Subcommittee on Rehabilitation did not hold a meeting this past year, although considerable work has been done by individual committee members toward development of a manual.

When released, this material will prove helpful to doctors in prescribing treatment for the physically handicapped. Many illustrations have been prepared as guides to available hobbies, occupational therapy and physical therapy.

C. B. Larson, M.D., *Chairman.*

COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations has spent considerable periods of time in discussing the pros and cons of various plans that have been brought before it, and in discussing what to do and what not to do in the physician-hospital controversy. Of necessity, this controversy, together with the resultant court action, brought about frequent changes in the plans that had been made. Nevertheless, a very successful Senior Day at the SUI College of Medicine was held, and it seemed of great benefit to the seniors and their wives.

During the progress of the physician-hospital trial, discussion of the problem was curtailed, for the Committee felt that expressing opinions at that time would constitute questioning the dignity of the Court. During that time, however, plans were being made and set on foot for further and increased public-relations activity for the State Medical Society, and Mr. Ray Stewart was employed to head the newly established Public Relations Department. In addition to directing the television activities of the Society, Mr. Stewart and the Committee have outlined other types of activity that will constitute a very high-level public relations program, one that will be a credit to the medical profession. It is designed both to give information to doctors and to give information to the public.

Of necessity, the expanded program will require an increase in the Committee's use of State Society funds. But the Committee feels that such activity is a must if physicians are to maintain satisfactory relations with the public.

Otto N. Glesne, M.D., *Chairman.*

SUBCOMMITTEE ON INTERPROFESSIONAL ACTIVITIES

The Subcommittee on Interprofessional Activities has continued its cooperation with the Iowa Interprofessional Association. Because of special problems that arose during the year, it also worked closely with the Iowa Pharmaceutical Association concerning (1) polio vaccine distribution, (2) drug dispensing by physicians, (3) counter prescribing by druggists, and (4) physician participation in a cooperative child safety campaign.

On November 11, 1955, the chairman of the Subcommittee and Mr. Dal Bruner, of the Iowa Pharmaceutical Association, participated in a panel discussion on doctor-druggist relations before the senior class of the Drake University College of Pharmacy.

On July 26, 1955, the Subcommittee met with representatives of the Iowa Pharmaceutical Association for a discussion dealing with the change in the Code of Medical Ethics permitting physicians to dispense "drugs, remedies or appliances, as long as there is no exploitation of the patient." (PRINCIPLES OF MEDICAL ETHICS, Chapter 1, Section 8, Revised)

The Subcommittee also discussed and approved cooperation with the Iowa Pharmaceutical Association in a Child Safety Campaign, and referred the matter to the Public Relations Committee. The Child Safety Campaign, when it had received the endorsement of that other group, began on February 12, 1956, with a proclamation from Governor Hoegh and the distribution of a Child Safety Booklet and Universal Antidote through the drug stores operated by members of the Iowa Pharmaceutical Association.

The Subcommittee also worked closely with the druggists in the distribution of polio vaccine.

On September 28, 1955, representatives of the Subcommittee met with the Iowa Interprofessional Association at the annual meeting of that organization. Mr. Donald L. Taylor, executive secretary of ISMS, was

named secretary-treasurer of the group at that session.

The Subcommittee feels that it has made progress in improving and maintaining good relations among the professions during the year.

FLOYD M. BURGESON, M.D., *Chairman.*

COMMITTEE ON HEALTH EDUCATION

The Committee on Health Education has been active in television, radio and newspaper work during this past year.

The title of the weekly television series presented every Thursday over WOI-TV, Ames, is now "Medical Diary." From April 8, 1955, to January 1, 1956, ISMS presented 40 live television programs over that station, and it is continuing them on a weekly basis. On October 13, 1955, a survey taken by the station showed that the "Medical Diary" series had the second highest audience rating of all local programs put on the air by WOI-TV.

Kinescopes (16mm sound film) are made of all programs for showing over three other television stations in Iowa: KGLO-TV, Mason City; KCRG-TV, Cedar Rapids; and KTIV-TV, Sioux City. It is hoped that the coverage can be even further expanded in the near future. The "Medical Diary" series now has an estimated audience of 200,000 viewers weekly.

The Committee's radio health programs are broadcast over WOI, in Ames, at 11:15 a.m. on Thursdays and over WSUI, in Iowa City, on Tuesdays at 11:45 a.m. The programs are on platters sent to the Society by the AMA. Each program is 15 minutes long, and there are 13 programs in a series. Plans are being made to schedule these programs over additional radio stations in Iowa.

The Committee has continued publishing a series of bi-monthly articles in WALLACE'S FARMER, and as of January 1, 1956, 48 health articles had appeared.

The Speakers' Bureau secured speakers for three county medical society meetings and four lay meetings. Several of our doctors are scheduled to speak at medical and lay meetings in the near future. When requests for speakers are sent to the Speakers' Bureau, a speaker is sent out who is qualified on the subject that the group wishes discussed. An attempt also is made to send out a doctor who has to travel as short a distance as possible to address the particular group.

Plans are being made to expand the current activities of the Health Education Committee.

ROBERT B. STICKLER, M.D., *Chairman.*

Reports of Special Committees

COMMITTEE ON BLOOD BANKING

In order that pertinent information concerning blood banks might be disseminated to interested persons, a survey was conducted through the office of the Iowa State Medical Society. This survey was designed to determine the number of blood banks in Iowa, their location and the name of the physician responsible for each of them. Information was gathered concerning the operation of the exchange system that is now being set up, and at the time of the ISMS Annual Meeting, a member of the Committee will make a supplemental report for the purpose of explaining the operation of the North Central District Blood Bank Clearing House.

The Committee recommends that the Iowa State Medical Society endorse the exchange plan of the North Central District Blood Bank Clearing House.

ROBERT C. HARDIN, M.D., *Chairman.*

CHIROPRACTIC COMMITTEE

The first meeting of the newly-formed Chiropractic Committee was held on December 10, 1955. The men who attended were Dr. John Kersten, Dr. F. C. Coleman, Dr. Ray Berger, Mr. Don Taylor and Mr. Robert Throckmorton.

The problem posed by the action of the chiropractors was discussed in a general way, and plans were formulated for future action.

The Committee's chief aim is to obtain facts and to recommend policies regarding the two groups of chiropractors in the state. There is some discord between those two groups, but that disharmony has not prevented their engaging in energetic legislative and legal activity. The aim of at least one of the groups has been to broaden the scope of chiropractic methods and procedures, and to obtain recognized professional status through a change in the Medical Practice Act.

Since this Committee has just started to function, no official report can be made for incorporation in the HOUSE OF DELEGATES HANDBOOK, but one will be prepared for presentation at the time of the Annual Meeting.

RAYMOND A. BERGER, M.D., *Chairman.*

OSTEOPATHIC COMMITTEE

As regards osteopaths and osteopathy, there have been no large problems presented to the Society requiring a meeting of the Committee during the past year. There is no reason for the Committee to suppose that all differences have vanished or have been solved. Rather, there has been a period of quiescence—thus no progress, gain or loss.

JOHN D. CONNER, M.D., *Chairman.*

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

The Committee on National Emergency Medical Service recommends that its membership be enlarged to include a representative each from the eleven councilor districts. Each member, then, could act as liaison between the ISMS and the Civil Defense authorities in his district.

The Committee will develop plans for meeting emergencies, in cooperation with the state director of emergency medical service. And each member of the Committee will aid in the formation of whatever organization seems appropriate in his own district.

ROBERT C. HARDIN, M.D., *Chairman.*

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

The Advisory Committee to the Woman's Auxiliary has had an active year. The county medical society and its auxiliary, working as a team, can achieve much in taking the lead toward the improvement of health in each community. It is the responsibility of the Committee to approve projects designed to implement

the National Auxiliary's theme "Leadership in Community Health."

The Iowa Auxiliary's Nurse Recruitment and Loan Fund Committee continues to be an active group. Fifty-eight active Future Nurses Clubs have been organized in high schools throughout the state. The percentage of FNC members who subsequently go into nurses' training makes this an important project. At present, 12 girls are receiving loans from the Auxiliary to finance that training; $4,734 is out on loan or committed for loans; and two girls are waiting for loans that will be given them next fall. The Auxiliary's Nurses' Loan Fund is supported through the assessment of 50 cents per member, plus memorial contributions. Further, the Nurse Recruitment Committee is taking an active part in the work of the Iowa Nursing Careers Committee, which consists of representatives from all interested organizations and coordinates nurse recruitment activities in the state.

The Safety Committee of the Auxiliary has set up a GEMS project (Good Emergency Mother Substitutes), for the training of baby sitters. Plans for teaching girls to undertake responsibilities of that sort are shaping up in a number of communities.

The Auxiliary's Civilian Defense Committee is propagandizing the idea that preparedness, through education in community defense, is an obligation.

The Auxiliary's Committee for the A.M.E.F. hopes both to raise money for the nation's 81 medical schools and to alert lay people to their financial needs. At present, it is conducting the "80-Dimes Campaign." Although the Iowa Auxiliary's monetary contribution to AMEF last year was not as great as had been planned, there is reason to believe it will be increased during the coming one, for the Committee has increased its efforts.

The Auxiliary committee responsible for promoting the sale of the AMA magazine TODAY'S HEALTH achieved 101 per cent of its 1955 quota. The 1956 quota has been increased over last year's, but the Committee is hopeful of repeating its success.

The Auxiliary's Committee for Handicapped Sales sponsored seven sales of articles produced by crippled people. For projects of that sort, department stores donate space and Auxiliary members act as saleswomen. All proceeds go to the individuals who made them, in cooperation with the Iowa Society for Crippled Children and Adults. Sales were held last year in Fort Dodge, Sioux City, Dubuque, Waterloo, Burlington, Des Moines and Spencer.

The Woman's Auxiliary to the Iowa State Medical Society participated in the Senior Day activities at the SUI College of Medicine in May. Members of the Woman's Auxiliary have expressed a desire and have shown great interest in being informed about legislative and public-relations problems of the State Society, and have expressed a willingness to cooperate in any way possible in solving them.

Space in this HANDBOOK is too limited to permit even cursory reference to others of the Woman's Auxiliary activities. Each of them is well-planned and highly worthwhile. The organization's current membership is 1,014; there are 42 county chapters and 62 members-at-large; and it is hoped that eventually every eligible doctor's wife will become an interested and active member.

W. L. DOWNING, M.D., *Chairman.*

COMMITTEE ON NURSING EDUCATION AND NURSING SERVICE

No meetings of the Committee on Nursing Education and Nursing service have been held since last March, mainly because no questions have been referred to it, and because the Committee, in itself, has little power to make suggestions or recommendations to hospitals or schools for nurses' training.

Last year the Committee recommended that a joint committee be established, on which the Iowa Hospital Association and the ISMS should be represented, and should be given the job of reviewing the entire nursing-education system. The Executive Council voted to support that idea in principle, but recommended further exploration and made the suggestion that representatives of the Iowa State Nurses Association be included in the membership of the joint committee.

Representatives of the Iowa Hospital Association and the Iowa State Nurses Association were approached, but it appeared that neither of those groups was in favor of starting such discussions.

At a meeting of the Iowa Nursing Careers Committee attended by the chairman of this Committee, representatives of both the hospital and nursing groups pointed out the increased enrollment in the nursing schools this year as evidence that the nursing situation was being improved. It is to be noted, however, that as a result of the expanded Hill-Burton Act and the gifts from the Ford Foundation, hospital facilities in the state will be further expanded and the need for nurses will increase beyond the number that the increased enrollment can be expected to supply.

Therefore, the Committee recommends that further efforts be made to bring together representatives of the ISMS, the Iowa Hospital Association and the Iowa State Nurses Association, and it suggests the inclusion of representatives from the Iowa Board of Nurse Examiners.

E. P. LOVEJOY, M.D., *Chairman.*

HISTORICAL COMMITTEE

The Historical Committee has but a brief report. There still remain more than one-third of the Iowa counties for which no medical histories have been written, and efforts have been made during the past year to obtain them. Such histories should be written soon, while those who participated in early activities are still able to compile them.

JEANETTE DEAN-THROCKMORTON, M.D., *Chairman.*

COMMITTEE ON GROUP INSURANCE

The Holmes, Prouty, Murphy & May agency reports that over 55 per cent of the active members of the Iowa State Medical Society are now enrolled in the group accident and health plan approved at the Annual Meeting last year.

This Committee was asked to make a study of professional liability insurance and to determine whether or not a professional liability plan could be worked out on a group basis. As a foundation for future planning, it was thought necessary that reactions and suggestions be obtained from everyone experienced in group plans for professional liability insurance.

The Legal Department of the AMA reported that

it was in the process of making a study of the problem throughout the country. Last fall, the Committee was informed, a questionnaire was sent to state societies, but the results have not yet been reported to the ISMS.

Information was asked of the societies in Oklahoma, Georgia, Minnesota, California and New York about group plans that have been instituted in those states. The responses, including ideas, outlines of plans and accounts of experience, have been fine and will be reported upon in detail at a later date.

The Committee suggests that all members read the many excellent articles on professional liability that have appeared in virtually consecutive numbers of MEDICAL ECONOMICS, beginning with the December, 1954, issue. All phases of this vast subject are discussed briefly, but well.

To facilitate a decision by the ISMS as to whether group coverages should be sought, or whether individual coverage should be continued, it is the aim of the Committee to present a comprehensive report at the Annual Meeting covering what is being done elsewhere, what possibilities exist for a workable plan in Iowa, and the remaining unsolved problems.

GEORGE G. YOUNG, M.D., *Chairman.*

PUBLICATION COMMITTEE

The 1955 JOURNAL continued with the presentation of articles delivered at the Annual Meeting of the Society, together with case reports contributed by Iowa physicians. At the beginning of 1956, when we published a paper by Dr. W. B. Williams, of Maquoketa, entitled "Several Items of Interest to General Practitioners," we issued an invitation to other general physicians to outline original therapeutic methods and modifications of standard procedures that they have found valuable and are willing to share with our readers. As Dr. Williams said at the beginning of his paper, it is probable that GP's have published articles no more than rarely because they think the journals are willing to print nothing other than accounts of investigations and clinical studies involving hundreds of cases. But the fact that none of them have been called upon to deal with more than a score of virtually identical problems during a five or ten year period does not preclude their having developed ideas that would be of considerable benefit to their fellow physicians in rural or small-town practice. And since one of the major functions of the IOWA JOURNAL is to provide a forum for the doctors of the state, space can and should be made for increasing numbers of their reports. Of course it will not be necessary for the JOURNAL to relax its standards as regards the quality of materials acceptable for publication.

The editors of the JOURNAL should like to publish abstracts of more and more of the significant papers that have appeared in other publications, and will be glad to have members of the Society suggest ones that they think merit being thus brought to the attention of their colleagues. Because time is always short and medical literature is voluminous, every physician needs help if he is to be sure of finding the current material that will be of greatest use to him.

Though the financial items in the accompanying summary do not show it, the cost of the JOURNAL to the Society promises to decline during the coming year. Advertising revenue has increased during the past year, and it is probable that the trend will continue and become increasingly pronounced. The State Journal Advertising Bureau, Inc., since its separation from the AMA early this year, has decided to accept ads for mixtures, as distinguished from single-ingredient medications, for publication in the journals that it serves, and this liberalization of policy is expected to bring about a sharp rise in revenue. And because SJAB has found that the rates for advertising in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY are lower than those in comparable publications, we are to raise our charges 15 per cent on all contracts negotiated after July 1, 1956.

	1953	*1954*	*1955*
Reading Pages	534	662	731
Advertising Pages	406	464	529
Percentage of Reading Pages	56.8	58.8	58.0
Original Articles	69	69	70
Editorials	68	69	58
Total Journal Expenditures	$25,475.40	$29,040.94	$34,481.04
Total Journal Income	$19,039.62	$21,329.19	$25,930.32
Number of State Society Members	2,481	2,485	2,504
Net Expenditure per Member	$2.59	$3.10	$3.41

Though the figures relating to the JOURNAL in the Treasurer's Report do not, the above tabulation of expenditures includes the salaries and proportionate shares of salaries of the staff members who edit and publish it.

E. M. GEORGE, M.D., *Editor.*

The Speaker then called for supplemental reports. Supplemental reports were presented to the House of Delegates and referred to the proper reference committee for study.

SUPPLEMENTAL REPORT OF BOARD OF TRUSTEES

(Referred to the Reference Committee on Reports of Officers for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The Iowa State Medical Society has just passed through one of the most crucial years in its history. All indications point to a year ahead that will be equally significant. The Society is confronted with much unfinished and new business which will require this House of Delegates to arrive at some momentous decisions. However, before we enter into these deliberations, many of which will concern the expenditure of money, it seems proper that your Board of Trustees, which has the responsibility for the employees, property and financial affairs of the Society, subject, of course, to your general instructions, should give an up-to-date summary of the Society's financial status and some idea of what may be expected in the future.

The year 1955 was, by any measure, the busiest year in the history of the Iowa State Medical Society. The Treasurer's report, which appears in your HANDBOOK together with the financial statement, reflects the price that has to be paid for this activity. We had more committees, meeting more often, and undertaking more projects than in any previous year. Other items which figured prominently in the increase in expenditures were the hospital-physician controversy and its resultant lawsuit. Last year, the cost of the annual meeting was doubled because of its enlargement. The increase in Society business has necessitated the em-

ployment of additional personnel and some remodeling of the headquarters office in order to accommodate them. These factors have contributed to an increase in some basic expenses for the general operation of the State Medical Society in the past year.

You will recall that at a special meeting of the House of Delegates on December 12, 1954, the Board of Trustees was authorized to levy a special assessment of $25 and to use half the Society's reserves, if necessary, to preserve the Medical Practice Act in its present form and to utilize all means at the Society's command to prevent hospitals from obtaining legal right to employ physicians and sell their services. On January 31, 1955, the Iowa Hospital Association and several of its member hospitals filed suit against the doctors, and we immediately prepared our defense. We retained Mr. Philip Cless and his associate Mr. John Blanchard as our attorneys. The trial in Polk County District Court, which lasted 63 days, is one of the longest in the history of Polk County. Judge C. Edwin Moore, the district judge who heard this case, favored us with an opinion that prevents hospitals from employing physicians.

The expense incident to the preparation and actual conduct of this trial approximated $80,000, of which $50,000 represented the special assessment collected and $30,000 came from the Society's reserves.

In 1956 we are confronted with the continuation of this problem, for the hospitals have appealed the District Court decision to the Supreme Court. Again this years we have retained Mr. Cless and his associate to continue our defense in the appeal to the Supreme Court. The hospitals have announced publicly that if the District Court decision is upheld by the Supreme Court, as we feel it will be, they plan to go to the legislature in 1957 and introduce a bill to amend the Medical Practice Act so as to permit hospitals to emply physicians on salaries.

The Executive Council on January 19, 1956, approved an educational program intended to inform the doctors and the public of Medicine's position in the hospital-physician controversy and to alert them to the dangers that would attend revision of the Medical Practice Act to permit corporations to employ physicians. To assist in the implementation of this stepped-up informational campaign, the Executive Council also recommended to the Board of Trustees that they consider the employment of a field secretary. This recommendation of the Executive Council was considered by the Board and approved. A field secretary was employed and began work March 1, 1956. He is Mr. Gerald Buckles, who was formerly a physician relations representative for Blue Shield. This entire informational program has been timetabled for completion by January 1, 1957, i.e., at the opening of the session of the legislature.

These developments necessitated that the Board of Trustees revise their budget which was designed in December, 1955, for the year 1956. It should be called to your attention that when we figured the budget for this year, our anticipated expenses exceeded what we might expect in income by $12,000. We expect that the employment of the new field secretary and necessary stenographic help, along with the fees for legal service in connection with the hospitals' appeal to the Supreme Court and perhaps to the legislature, will add approximately $50,000 additional expense for the year, as a conservative estimate.

The outlook being what it is, this House of Delegates is faced with one of two decisions—either it will have to authorize the Board of Trustees to levy a special assessment again this year, or begin at once to curtail activities. In the best judgment of your Trustees, it would be a mistake to curtail any of the Society's activities at this time. We believe we have one of the best balanced, well-organized state medical societies in the country. We have an exceptionally well-trained staff. We attempt to maintain a salary schedule which is adequate and competitive with industry. The State Society has received a number of commendations from other states, as well as from the AMA, for the way it has conducted its affairs in connection with this lawsuit. We don't feel that now is the time to cut back. Instead we think it is time to move ahead with the programs we have under way which have been developed in the interest of protecting the doctors against encroachment by outside parties and in bringing worthwhile health-education information to the public.

Therefore, we wish to introduce the following resolution:

Whereas, The Iowa State Medical Society is faced with unpredictable expenditures for the continued defense of the Medical Practice Act, and

Whereas, It is becoming increasingly necessary to expand the ordinary operations of this Society in order to protect physicians and their patients and keep in trend with the advancements in medical science, and

Whereas, Our reserves have been depleted to a point where they no longer are adequate to supply sufficient funds in case of emergency, and

Whereas, We believe it is essential to maintain Society activities at their present level, and

Whereas, We must try to replenish our reserves to a point consistent with good business practice,

Now Therefore Be It Resolved, That the House of Delegates empower the Board of Trustees to increase the dues in an amount not to exceed $25 per member at any time deemed necessary prior to December 1, 1956;

Be It Further Resolved, That the Board of Trustees be further empowered to increase the regular annual dues beginning January 1, 1957, in an amount not to exceed $25.

Fred Sternagel, M.D., *Chairman*

Without referral to the reference committee the above resolution was unanimously approved by the House of Delegates with the following amendment: "That the dues for 1958 be determined by the House of Delegates in April, 1957."

Supplemental Reports of Standing Committees

COMMITTEE ON LEGISLATION

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

With Congress in session and legislative problems developing at the state level, the Committee on Legislation, as a standing committee of the House, wishes to make a progress report and ask for your guidance on the problems currently before us. This progress report is divided into three sections:

1. *Strengthening Our Legislative Program.* The leadership in the health field that we, as physicians, have enjoyed is being challenged at an alarming rate. We see an increasing amount of legislation introduced at both the national and state levels which would take the initiative in health matters away from the doctors and give it to others.

To meet this challenge, we must demonstrate to the public, to the legislature and to Congress that we de-

serve to retain our leadership. This requires the interest and personal effort in the legislative field of every doctor in the state of Iowa. It requires particularly, however, that the legislative arm of the Iowa State Medical Society be able to coordinate and utilize your efforts effectively. We are strengthening our legislative organization as rapidly as possible so that we can do this job. These are things we have done since our report in the HANDBOOK was prepared:

A. With the approval of the Executive Council, a change has been made in the method of selection of the legislative contact men. The legislative contact men will now be appointed by the president of the Iowa State Medical Society. A few days ago the legislative contact men who have served in the past were notified by the president that their tenure was up and that new contact men were being appointed. A breakfast is scheduled day after tomorrow at which we shall meet with the newly appointed legislative contact men and discuss their responsibilities with them. We are also preparing a manual which will spell out their duties in detail.

B. On recommendation of the Executive Council and with the approval of the Board of Trustees, a field secretary was employed on March 1 to represent the Public Relations Committee and the Committee on Legislation. This field secretary is covering the state as quickly as possible, developing channels of communication between the two committees at the state level, and the public relations representatives and the legislative contact men at the local level.

C. Meetings are being held with groups having potential legislative interests in common with ours, such as the Iowa Farm Bureau Federation.

D. Early in February, representatives of the Legislative Committee met in Washington with the Congressional delegation from Iowa. We had a very satisfactory meeting. Two questions, however, seemed to be uppermost in the minds of our Senators and Congressmen. First, they asked about the enrollment at the State University of Iowa College of Medicine because of their interest in having more doctors locate in rural areas. Second, they asked about the Blue Shield and Blue Cross insurance program in Iowa. We were convinced from their statements that the Blue Shield-Blue Cross program is our strongest bulwark against government control of medicine.

2. *National Legislative Problems.* Some 500 health bills have been introduced in the 84th Congress. These include:

A. *Expansion of the Social Security Program*—H.R. 7225, which would provide, among other things, for cash disability benefits to participants in the Social Security Program, has passed the House of Representatives and is now being considered by the Senate Finance Committee. Our Iowa Congressmen and Senators, through the excellent cooperation of the legislative contact men, the members of the Executive Council and the officers of the Iowa State Medical Society, have been made aware of the opposition of the physicians of Iowa to this expansion of the Social Security program.

Some 101 witnesses, including many doctors, have testified before the Senate Finance Committee. It is not yet known when this bill will be sent to the floor of the Senate. It is our hope, however, that the committee will eliminate the cash disability benefits section of the bill.

B. *Commissioning of Osteopaths in the Medical Corps of the Armed Forces*—H.R. 483, which would authorize the commissioning of osteopaths in the Medical Corps of the Armed Forces, has passed the House and is now being considered by the Senate Armed Forces Committee. After conferring with the Osteopathic Committee, your Legislative Committee has strongly opposed the commissioning of osteopaths. There is a difference of opinion between the Department of Defense and the Surgeon General of the Army, Navy and Air Force as to the desirability of this legislation, and its outcome is uncertain at this time.

C. *Extension of the Federal Salk Vaccine Program*—Extension of the Salk Vaccine Program until July 1, 1957, was voted by Congress in January, 1956. The lack of necessity for having the federal government continue in this program was pointed out to our Congressional delegation. When the present extension expires, it is our hope that federal participation will not be continued.

D. *Medical Care for Military Dependents*—Several bills are now before Congress which would provide medical care for dependents of our servicemen at government expense. H.R. 9429, the bill currently under active consideration, would give the dependents a choice of care in military facilities or in private facilities. For private care, the Secretary of Defense would choose a fiscal agent such as a commercial company, a non-profit company or a state medical society. An amendment was added to the original bill, however, which gives the Secretary of Defense authority to designate areas where no private care would be given because, in his opinion, military facilities were adequate to care for the dependents. This bill, with the undesirable amendment, has passed the House and is now before the Senate Armed Services Committee. We have informed our Congressmen and Senators that if the government assumes responsibility for dependent medical care, it should be provided through private facilities by private physicians.

E. *Tax Deferred Retirement Plans for Self-Employed*—Several bills (H.R. 9 and 10) have been introduced which resembled the Jenkins-Keogh bills introduced in previous sessions. Hearings on these bills were held in 1955 by the House Ways and Means Committee, but no action was taken.

A survey conducted two years ago by our Legislative Committee indicated that members of the Iowa State Medical Society were strongly in favor of this legislation and it has been actively supported by your Committee. Its chances of passage, however, do not appear good at this time.

F. *Extension of Social Security Coverage to Additional Groups*—It seems likely that Social Security coverage on a compulsory basis will now be extended to several professional groups such as the lawyers and dentists. We have been told by our Congressional delegation that physicians will not be included under the Social Security program unless they ask to be included.

A survey conducted by the Legislative Committee two years ago indicated that physicians in Iowa favor voluntary coverage, but are opposed to compulsory coverage. Opportunity for voluntary coverage at this time, however, seems remote. In fact, we have been told that it will be impossible to have physicians included on a voluntary basis.

G. *Extension of the Hill-Burton Program*—In both houses, the administration has had introduced legislation which would extend the Hill-Burton Act for two years beyond the present expiration date of September 30, 1957. No hearings on these bills have been scheduled as yet. The AMA is currently engaged in a study

of the Hill-Burton program. We are awaiting the results of this study.

In dealing with these legislative problems at the national level, your Legislative Committee is attempting to develop the closest possible liaison with the AMA. We believe that we can deal much more effectively with national problems if we coordinate our efforts with those in other states. This coordination can best be accomplished through the AMA.

3. *Local Legislative Problems.* Although the next legislative session is eight months away, we see several legislative issues ahead of us. These include:

A. *Change in the Composition of the Board of Health*—An active attempt is anticipated in the next legislative session to increase the size of the Board of Health to somewhere between 12 and 20 members. These additional members would include representatives of other groups interested in the field of health such as dentists, nurses, sanitary engineers and veterinarians.

B. *Mental Health Legislation*—Because of increasing interest in mental health problems, legislation in the field of mental health is anticipated. In fact, the governor has appointed a Mental Health Commission to study mental health problems in Iowa. It is inevitable that legislative recommendations will result from this study.

C. *Changes in the Practice Acts*—Attempts to change the Practice Acts in Iowa are anticipated. The chiropractors made a determined effort in the last legislative session to expand their scope of practice. This effort failed, so they are now attempting to accomplish this objective through litigation directed against the Commissioner of Health and the State Department of Health. If the litigation is decided against them, and we think it will be, another legislative effort is anticipated.

Our neighboring states of Minnesota and Wisconsin now have closed-panel medical care plans operating within their borders. It is not unlikely that efforts will be made to institute such closed-panel plans in Iowa. A change in the Medical Practice Act, however, will probably be necessary in view of Judge Moore's decision, for under this decision physicians cannot be employed by corporations and their services sold by the corporations. The Legislative Committee is indebted to the Committee on Medical Service, under the chairmanship of Dr. C. V. Edwards, for a detailed study of closed-panel plans which it conducted at our request.

There are indications also that the Iowa Hospital Association may attempt to change the Medical Practice Act so as to permit employment of physicians.

I would like to express the appreciation of the Committee on Legislation for the cooperation and help received from the executive staff. I would recognize, particularly, that of Mr. Donald Taylor and Mrs. Dorothy Dolk for the many overtime hours they have devoted to our legislative program.

F. C. Coleman, M.D., *Chairman.*

COMMITTEE ON ARTICLES OF INCORPORATION AND BYLAWS

(Referred to the Reference Committee on Articles of Incorporation for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The Committee on Articles of Incorporation and Bylaws submits the following suggested changes to the articles and/or bylaws of the Iowa State Medical Society for your consideration:

In Article IV, Section 10, Line 8, replace the sentence that reads, "He shall collect all dues from each component society and shall keep account of, and promptly turn over to the Treasurer, all funds of the Society which come into his hands" with the following: "He shall collect and keep account of all dues and all other money due the Society. He shall turn over to the Treasurer all funds of the Society which come into his hands except in instances otherwise ordered by the Board of Trustees."

In Article IV, Section 16, Line 4, following the word "Vice President," add the words "the Speaker of the House of Delegates."

In Article V, Section 4, last line, add the words "life and active" before the word "members."

In Chapter II, Section 1, Line 3, add the words "active and life" before the word "members" in the sentence which begins, "Only registered . . ."

In Chapter III, Section 3, Line 3, following the words "send one delegate" add the following: "from each county within the component society."

In Chapter VI, Section 3, revise the entire section to read as follows: "Any component society which fails to pay annual dues, or make the reports of delinquent members or such other reports required, on or before March 1, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society, or of the House of Delegates, until such requirements have been met. Suspended members cannot be reinstated until the indebtedness for which they were dropped from the membership roll of the Society has been discharged. Such indebtedness shall apply only to one year of delinquency."

In Chapter IX, Section 10, Line 5, following the words "one alternate delegate" add the words: "from each county within the component society."

In Chapter X, Section 5, Line 3, change the word "Treasurer" to read "Secretary."

In Article VI, Section 1, insert the following new sentence immediately prior to the last sentence of Section 1: "Two physician members of the Board of Directors of Iowa Medical Service who are members of the Iowa State Medical Society (hereby designated as 'Blue Shield Representatives') shall be, ex officio, members of the House of Delegates without the right to vote unless that physician be at the same time a duly elected Delegate."

In Article IV, Section 16, Line 5, change the period at the end of line 5 to a comma and add the following: "and two Blue Shield Representatives, ex officio, without the right to vote unless that representative be at the same time a member of the Executive Council in another capacity entitling him to vote."

In Chapter V, add the following new Section: "Section 18. The Blue Shield Liaison Committee shall consist of three members of the Board of Trustees, selected by the Board of Trustees, and three physician members of the Board of Directors of Iowa Medical Service, selected by the Board of Directors of Iowa Medical Service. The Committee shall annually select the Blue Shield Representatives to the House of Delegates, as provided in Article VI, Section 1, and the Blue Shield Representatives to the Executive Council, as provided in Article IV, Section 16."

A. B. Phillips, M.D., *Chairman.*

COMMITTEE ON MEDICAL SERVICE

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Since the publication of our report in the HANDBOOK, our Committee has done some investigative work in the growing fields of closed-panel and union-sponsored plans at the request of the Legislative Committee of the Iowa State Medical Society. Our completed report was just recently delivered to the members of the ISMS Legislative Committee, to its Prepayment Insurance Committee and to the Blue Shield Board Members.

In this supplemental report, we should like to draw pertinent information not only from the prepared report previously mentioned, but also from correspondence and information that originated in the offices of Walter P. Reuther, president of UAW-CIO, and other sources.

We should like first to call attention to an article in the March, 1956, issue of MEDICAL ECONOMICS entitled "Can Blue Shield Meet the Competition?" We take the liberty of quoting the thought of Dr. Morris Crothers verbatim:

> Probably the most serious problem for Blue Shield is its geographic set-up. Like the medical profession that founded it, it is organized in small geographic units—many of them covering less than a single state
> In times past there were definite benefits to such local autonomy but it has now become an almost fatal weakness. The nation's great unions and industries aren't organized on a local basis. Their workers want industry-wide health plans, and they're going to get them. If Blue Shield won't cooperate, the commercial companies will. Or else big business and the big unions will set up more and more closed-panel plans like Kaiser Permanente.

Our Committee studied carefully the Progress Report of the AMA Commission on Medical Care Plans. This Commission in its studies to date has discovered nearly 300 miscellaneous plans operating in the United States that are not classified as commercial insurance carriers or Blue Shield medically sponsored plans. It has obtained sufficient data from 206 of those plans to make the following observations:

> (1) The total enrollment exceeds 5 million, and most of this growth has occurred in the last few years.
> (2) While only 17½ per cent of these plans were classified as union-sponsored, they accounted for 36 per cent of the total enrollment.
> (3) Fourteen plans, or 7 per cent, have a total enrollment of 1,400,000, or 20 per cent of the total, and they are identified as closed-panel plans.

The AMA regards the plans in this "unclassified" category as some of the ones that it most needs to study, and your Committee feels that there will be even more marked growth of these unclassified plans within the next decade, unless medically sponsored plans throughout the nation can become more progressive, thus eliminating the need for the creation of plans that are not medically sponsored.

We don't know whether this House is familiar with labor's unrest in Michigan or not, but we feel that the situation existing there and similar situations that seem likely to develop elsewhere make it necessary that we in Iowa do what we can to prevent adverse publicity for Blue Cross-Blue Shield and the medical profession.

Michigan's insurance commissioner, Joseph A. Navarre, delivered an address before the 1956 Annual Conference of Blue Cross and Blue Shield Plans on April 8, 1956. We shall quote a portion of his address:

> The Blue-Cross-Blue Shield Plans are experiments involving dynamic forces, social and economic, and are designed to meet public needs within the framework of our way of life under the free enterprise system of our constitutional democracy. The fact that the plans were created as an "answer" to a cry for "socialization" of health services is a significant historical fact. American genius and ingenuity have made Blue Cross and Blue Shield a significant and powerful organism. It is capable of good beyond dreams of its most optimistic sponsors.
> In recent months throughout the land definite signs of dissatisfaction with Blue Cross-Blue Shield have become apparent. Questions have been raised with reference to its cost, its purpose, its objectives and its management. The subscribers have become concerned about the uses to which the trust fund is being put by the trustees.
> Innocent blundering, thoughtless and sometimes deliberate misapplication of legitimate purposes disturb the delicate balance of the social and economic justice necessary to the preservation of the Plans as a social mechanism. Surveys and investigations indicate that the predators of the systems through "abuse," "faulty utilization," and in devious ways are driving the cost of the services beyond the means of large segments of society.
> To the extent that the numbers of those served by the systems become limited, through a cost beyond their reach, to that extent do the systems fail of their objectives as a mechanism providing hospital and medical care on a voluntary prepaid, non-profit basis.
> Historically, society has demonstrated its intolerance of failure. New institutions rise from the ashes of the old. The inventive genius of America will devise a means to provide health care within the financial reach of a majority of the populace. If the present methods fail, a compulsory tax-supported plan may well be the substitute experiment. Those of you who have not had the experience of sitting through hearings on Blue Cross rate increases in recent months may not fully appreciate the realism of this view. Those who have, understand the import of my statement.

Several months ago, the Blue Cross Plan of Michigan requested authority from the Michigan Insurance Department for a 23.1 per cent rate increase. Labor unions and the general public became very much aroused when information of this request reached the press. Walter Reuther has had this to say about the present Michigan situation:

> From the beginning, organized labor has valued the principles of prepayment and of service plans. Organized labor gave Blue Cross-Blue Shield Plans the support they needed at their inception . . . and have consistently supported Blue Cross-Blue Shield. . . . We are disappointed, however, that Blue Cross and Blue Shield have not made needed progress in meeting the health needs of the people. We are alarmed, moreover, at the implication of prepayment plans' giving a blank check to the purveyors of service and passing on unjustified costs to the consumer. . . . Switching to commercial insurance will not help solve the problem. In the long run, it would provide less rather than more protection. Workers have not been reluctant to pay for more and better health service. They want assurance, however, that they are getting their money's worth when they make such payment. . . . A substantial increase in Blue Cross premiums with no significant benefit improvements makes little sense to the subscriber. Rather, a modest rise to the minimum amount that will keep the Plan solvent and gradually increase reserves with no stipulation as to how long the premium will stay in effect, would seem more appropriate. Even this increase should not be allowed unless Blue Cross, its companion Blue Shield and the hospitals and physicians of Michigan show a willingness to face together the disagreeable but indisputable fact that drastic reform is needed to save this type of program. . . . What is needed is scrutiny of the whole operation by a body of citizens whose judgment will be generally respected. The information and recommendations upon which such a group acts must be assembled, not by the bodies under scrutiny, but by a technically competent outside agency.

The Social Security Department of the United Auto Workers, under the direction of James Brindle, recently conducted a survey of the adequacy of Michigan Medical Service benefits. There are close to 2,000,000 members of the United Auto Workers and their dependents enrolled under the Michigan Blue Shield Plan. Here are some of that group's principal findings:

> (1) The $2,500 income ceiling contract paid, on the average, just over one half (52.3 per cent) of the surgeons' fees in all interviewed cases under this contract.
> (2) The more serious the operation, the less adequate was Blue Shield's payment under the $2,500 contract.
> (3) Under the $5,000 income ceiling, 71.5 per cent of the surgeons' fees were paid.
> On the whole, persons with the $5,000 income ceiling plan seem to fare a little better than those who have the $2,500

contract. However, there is not much comfort to be derived from this conclusion. There is very little enforcement of the very essence of the $5,000 contract—its full-payment feature. Apparently during the many years when the only available plan had the low income ceiling of $2,500, doctors got into the habit of ignoring the income ceiling.

We also have in our possession a letter dated April 2, 1956, from Mr. James Brindle to an Iowa doctor. For your information, we shall quote two paragraphs from that letter:

Mr. Reuther's statements made it clear that he was not talking of Blue Cross alone. Concerning non-profit voluntary health programs, he was speaking of Blue Shield, the physicians, and the hospitals as well. Incidentally, we consider the recent court decision in Iowa as a step backward. In our minds it is perfectly logical for a hospital to use a salaried pathologist, a salaried anesthesiologist and, as a matter of fact, a complete salaried staff. For instance, in this city, an institution with a national reputation, the Henry Ford Hospital, has a complete salaried staff. Many of us here have had experience with this hospital and with others which, like it, have a closed salaried staff such as the Mayo Clinic. We are satisfied with the quality of medical care offered by such institutions and are convinced from first-hand experience that an excellent doctor-patient relationship can exist in such a framework.

We would also disagree that controls outside the doctor-patient relationship are unnecessary. Obviously we would not want to see the discontinuance of state licensing of those in the healing arts profession or the removal of restraints and restrictions such as licensing of hospitals, of laboratories and of ancillary personnel. While these activities represent outside control, they are positive forces making for higher quality of medical care. We also feel that the standards set by specialty boards and the attempts of organized medicine itself to control the quality of medical care to prevent abuses and otherwise exercise control, are not necessarily negative. It is our feeling that more, rather than fewer controls, positively applied and aimed at assuring the quality of medical service would be valuable.

We think it is fortunate for our medical profession and for the Blue Cross-Blue Shield movement that we have a friend in the Hon. Marion B. Folsom, secretary of Health, Education and Welfare. On April 8, 1956, he delivered an address to the National Conference of Blue Cross-Blue Shield, and we quote for your information a portion of his remarks:

As I have followed the development of voluntary health insurance and as I study the recent situation, I have the feeling that we face difficult problems—but they are by no means insurmountable. We do have one advantage today—a wealth of background and experience. A tremendous job has been done in reaching more than 100,000,000 Americans with some type of prepayment plan for hospital care—a seven-fold increase in only 15 years. Blue Cross, with its more than 50,000,000 subscribers, deserves great credit for protecting so many people against the financial risks of hospitalization. More than 86,000,000 Americans have some insurance against the costs of surgical care, with Blue Shield covering 36,000,000 of them. This is another eminent achievement.

In making this progress, you have adapted your policies and technics to meeting changing conditions and changing needs. You have acted as effective partners of two important segments of the nation's health resources—the hospitals and the physicians. You have displayed initiative, enterprise and a willingness to venture into new fields. But you should not stand pat, even on this record. Renewed vigor, enthusiasm and energy must now be directed toward continued expansion and improvement in the protection of families against the costs of sickness and disability.

Despite the rapid progress that has been made, there are still about 65,000,000 Americans without hospitalization insurance of any kind. About 80,000,000—almost half the population—have no surgical insurance protection. And more than two out of three of our people—about 120,000,000 altogether—lack insurance against general medical expenses.

Of a total of more than $10,000,000,000 in private medical care costs annually only a little more than $2,000,000,000 (22 per cent) is now being met through insurance benefits. Of course, no one expects voluntary insurance arrangements to meet medical care costs completely, but I think you will agree that insurance can and should meet much more than 20 per cent.

The problem is to provide the maximum possible protection to the greatest number of people at the minimum cost. How can we solve this problem which gets more complicated each day? This, I believe, requires profound study by many groups—your organizations included.

I have been—and am now—a firm believer in plans that provide service benefits. But to make your plans fulfill their mission, I think there is real need for Blue Cross and Blue Shield to reevaluate their basic objectives. You have pioneered in the past. Can the American people, who have so thoroughly supported you in the past, expect less pioneering in the future?

Our Committee has felt a responsibility to summarize the highlights of the trends in our times. In the early formative years of Blue Shield, the demand for creation of plans in the various states came from the medical profession to forestall or prevent socialized medicine. Now, the demand for improvement of plans is coming primarily from the public. It is searching for comprehensive protection, so as to eliminate, in so far as is practical, the unknown costs of illness. Students of public opinion realize that if the medical profession cannot offer ways and means to solve this problem, the public will resort to other methods of financing health care, methods that are much less favorable to the medical profession.

C. V. Edwards, M.D., *Chairman.*

SUBCOMMITTEE ON PREPAYMENT MEDICAL CARE

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

In the HANDBOOK, you have a progress and financial report of the operations of Iowa Medical Service for the last year. The utilization of benefits revealed a gradual increase, as is to be expected as a Plan grows older. The loss experience was not out of line, and the financial status remained satisfactory.

The supplemental report now placed before you shows a sharp and sustained increase in utilization for the first quarter of this year, one which is continuing into the present month. For the first quarter of this year, we paid 46,666 claims, in contrast with the 37,484 claims that we paid in the first quarter of last year, an increase of 9,182, or nearly 25 per cent. The dollar increase for the period was $293,053, or 25 per cent.

These figures bring to mind that we do not have a substantial margin in our premium rate which would permit any increase in benefits or in fees for service.

Last year, this House of Delegates asked Blue Shield to make an exhaustive study toward providing another and separate full-coverage policy embodying higher premiums, higher fees and a top income level coverage somewhere above the present limit. It also asked us to study the discrepancies and inadequacies that exist in the present Blue Shield fee schedule. A third part of that recommendation requested us to explore the possibilities of offering a contract covering diagnostic procedures.

The Blue Shield Board, its Medical Advisory Committee, members of the various specialty groups and individual physicians have expended many hours working on these three projects in order to make Blue Shield a more progressive program for the benefit of the medical profession and the people of Iowa.

Some physicians are opposed to a second and higher income level contract on the grounds that Iowa Medical Service was organized primarily as a vehicle to assist people in the medium and lower income brackets to budget for the cost of illness. Although that premise is correct, rapidly changing social and economic conditions are forcing us to look beyond that original concept. Families in the middle income brackets today are finding it just as difficult to budget for the costs of medical care as did low income families ten years ago.

The growth in population is enormous. Four million babies are born each year. The absolute annual in-

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The prevention and control of cellulitis, abscess formation, and generalized sepsis has become commonplace technique in surgery since ACHROMYCIN has been available. Leading investigators have documented such findings in the literature.

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[1]Albertson, H.A. and Trout, H. H., Jr.: *Antibiotics Annual* 1954-55, Medical Encyclopedia, Inc., New York, N.Y., 1955, pp. 599-602.

[2]Prigot, A.; Whitaker, J. C.; Shidlovsky, B. A., and Marmell, M.: *ibid*, pp. 603-607.

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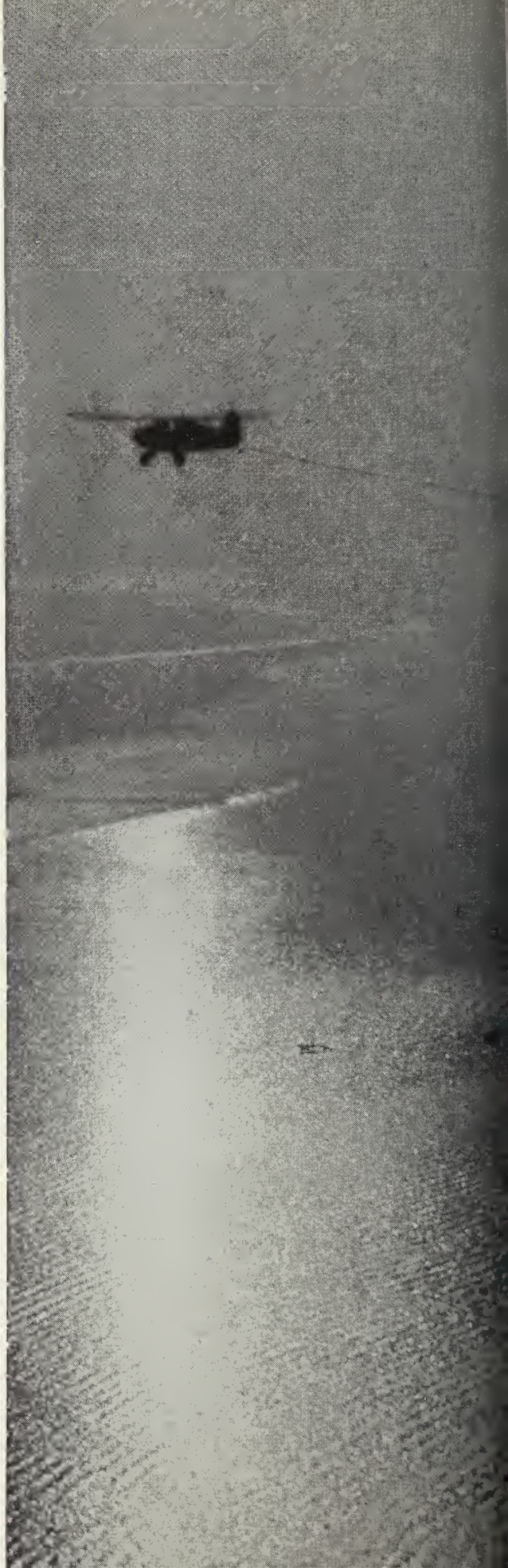
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crease in population is 2,800,000. Combined with this is a rapidly aging population. At the end of this year, we shall have 14,400,000 people beyond the age of 65. There is a daily increase of 1,100 in this age group. The incidence as well as the duration of illnesses increases rapidly with advancing years. With a decrease in income and resources, these people have little with which to defray the costs of their frequent and prolonged illnesses. Many cannot even pay the premium on sickness insurance.

As physicians, we have the obligation to meet their needs for medical care, and as a profession we must cheerfully accept that duty, with or without pay. Blue Shield should find ways to meet these problems.

Complaints have come from individual participating physicians and from some officials of the State Medical Society that they are not kept sufficiently well informed on problems related to Blue Shield. In reply, it should be stated that Blue Shield maintains a staff of physicians relations personnel who are continually contacting doctors over the state to inform them of developments and changes in Blue Shield practice. Each of the eleven State Medical Society councilor districts has a doctor representative on the Blue Shield Board. In addition, the councilor in each district has appointed a doctor in each of his nine counties to serve as a Blue Shield liaison physician. The physicians relations representative makes a special effort each time he is in the county not only to give a detailed report to this doctor, but to gather from him complaints and suggestions that have been brought to his attention at county medical society meetings or directly to him by his colleagues.

As you know, executives of our organization and our Board members, where possible, appeared before numerous district and county medical society meetings last winter to explain in detail the problems incident to the developments which had been asked for at the last session of the House. Your Blue Shield Board members were faced with a tremendous task, and they were willing and anxious to have constructive suggestions direct from individual practicing physicians on how best to approach their problems.

In addition to these various avenues of communication, we have used news bulletins, letters to participating physicians and the facilities of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, which had been so graciously afforded to Blue Shield.

Iowa Medical Service cannot remain static. The alternatives are to go forward or eventually to die. To insure growth and stability, it must have an expanding program. This is the incentive for our devising a second and possibly a third subscriber contract tailored to meet the requirements or needs of individual subscribers. There is evidence of a strong desire on the part of the public for such a contract, and it should be saleable, especially if it can be combined with a deductible or a co-insurance feature, or both. Also, with an adequate though reasonable premium rate, Iowa Medical Service could probably strengthen its position so as to include subscribers at the older ages (past 65) who may have the ability to pay for one or the other of the contracts.

We find more and more evidences of the need for flexibility in our offerings to the public. Industry-wide health plans are negotiated with the nation-wide labor unions. The underwriting of national accounts such as Ford, General Motors, U. S. Steel, dependents of military personnel, and U. S. government employees (to mention a few) is essential to the future of Blue Shield. Many of your patients fall or will fall into one or another of these categories.

If Blue Shield is to survive and if the doctor is to retain a voice in the economics of medical care, then Blue Shield needs the "cream" of the large industrial groups to offset the "skim milk" of small groups and individuals.

We hear some complaint that a higher fee schedule and correspondingly higher full-service provisions will tend to set fees and regiment the individual practitioner. If that be true, is it not better that the profession should voluntarily apply some regulation through fees and provisions of its own choosing, than submit to the advances of closed-panel schemes such as Kaiser-Permanente or union-sponsored plans, or—even more objectionable—governmental control?

Mr. Speaker, at this time, I should like your permission to have Dr. Gordon Harkness, chairman of our Medical Advisory Committee, give a progress report.

MARTIN I. OLSEN, M.D., *Chairman.*

PROGRESS REPORT OF THE BLUE SHIELD MEDICAL ADVISORY COMMITTEE

The task presented to the Medical Advisory Committee was far greater than anticipated. Dr. Olsen has mentioned some of the highlights of that task. The approach, I believe, should be based on these premises:

(1) Blue Shield is a part of the forces combating socialistic trends in government.
(2) Blue Shield needs the individual cooperation of the members of the profession. It would like every physician to participate, but it does not feel that there should be coercive powers in the medical profession. No doctor should be made to participate, nor should his non-participation reflect on any individual in his professional organizations.
(3) Blue Shield is a voluntary business organization of doctors. Its clients are the public, and it is this same public that will eventually decide the future type of medical care that will be provided by the medical profession. This will not be done by the medical profession.
(4) Blue Shield must conduct itself on a sound financial basis, catering to its clients and at the same time protecting the medical profession.
(5) Organized efforts by the medical profession are essential to demonstrate to the public that we are sincere and that our voluntary efforts offer the greatest benefits and protection to human welfare.

Following the Annual Meeting in 1955, the Medical Advisory Committee was charged with responsibility for exploring the possibilities of a second contract providing greater benefits and providing for a higher income level than the present Blue Shield contract.

The Committee immediately undertook to get in touch with each and every organized specialty group in the state of Iowa, including the Academy of General Practice. A letter was sent to each of those groups on June 7, 1955, which requested each group to complete a fee schedule, setting forth what it believed to be a fair remuneration under the present $3,600 contract, plus any additions or changes that should be considered and possibly added to the present contract. In addition to suggesting changes in the present contract, those groups were asked to provide a realistic fee schedule based on what the doctor would charge a patient in the $3,600 to $6,000 per year income bracket.

A month later, since nothing had been submitted to the Medical Advisory Committee for its consideration or for actuarial studies which were of the utmost necessity in considering any proposals, a follow-up letter was sent to each group. Many of the groups responded, but as late as August 20, 1955, there were still some groups which had reported nothing other than that they had some committees working on the suggested schedules. The Medical Advisory Committee met on October 16, 1955, to consider the material that had been

received and to go over data which it had requested the Executive Director to prepare.

In studying the suggested schedules that had been submitted, the Committee found that there were some inconsistencies and that many of the inequities previously compained of consisted of Blue Shield's failure to provide specific types of services in the contract. The Committee agreed that compensation for medical services should be increased in the $3,600 contract, but it felt that probably it was not actuarially sound for Blue Shield to do so at the present time, unless it could do so without a change in premium rate. The Committee also decided that (1) a higher income schedule should be based on realistic present charges made by physicians in Iowa; (2) the present program seems adequate with some changes to correct outstanding inequities; and (3) when the fee schedule for a higher priced plan is finally adopted, the lower schedule should be adjusted proportionately, by percentage, or in some other equitable manner.

It was the feeling of the Committee that by finding out the realistic present charges made by physicians, it could readily point out the inequities presently existing in the $3,600 contract. Once the inequities were pointed out, it would be relatively simple to adjust payments and keep them in proportion with the baselines established by a model contract providing benefit changes, new coverage and a new fee schedule based on realistic charges for persons having incomes between $3,600 and $6,000 per year.

It was also decided that an educational program should be launched to acquaint the doctors around the state with the activities to date of the Medical Advisory Committee and ask for their help in considering further problems that might be apparent to them by the nature of their own personal practice.

Meetings were held with some of the larger county societies and in every councilor district of the state over a period of three months. At those meetings the doctors in attendance were told of the progress being made in the study of the proposals for different contracts. Unfortunately, however, only about 10 per cent of the doctors in Iowa attended those meetings, and despite the personal contacts made by the Physician Relations Department outside of those meetings, full awareness of the Committee's activities did not reach every doctor in time to be of major value to the Committee. Several other committee meetings where held, and efforts were made to crystalize the proposals that had been submitted along with the suggestions from the various district meetings around the state.

A tentative proposal was drawn up and presented to delegates from each of the specialty groups at a meeting held on February 26, 1956. That particular meeting did not accomplish the purpose for which it was intended, but it did cast some very serious doubts upon the likelihood that a proposed model contract could be made ready for presentation at this Annual Meeting. It was apparent not only that the Medical Advisory Committee was having difficulty in securing information from the various groups, but that the individual groups were having difficulty getting any organized activity and consultation or suggestions from members of their own specialty groups. Just what caused the apathy and lack of response to the requests for information is not known, but it undoubtedly contributed to the Committee's inability to arrive at firm conclusions.

Since it was apparent to the Committee that a model contract could not be established at this time, it was likewise apparent that the inequities complained of were not in regard to specific fees for services now covered, but in most cases were requests for broader coverage. Many of the services that the doctors wanted included could prove quite expensive and would require a considerable change in the rate structure of the $3,600 contract. Although it was suggested that certain fees might be reduced to provide for the inclusion of additional benefits, such a course of action would have created many new problems, and it perhaps would be quite unacceptable to the profession to prorate the various fees in order to maintain a constant premium rate at this time.

The Committee felt and still feels that a model contract should be developed, and it feels that Blue Shield is progressing in the right direction in searching for this model contract without regard to the price to the public, but, instead, by developing it on the basis of expanded benefits and realistic fees. Once a model contract has been determined, all inequities and lack of benefits will be more than apparent, and from that point on, contracts can be developed through the use of proportionate adjustments or of a percentage basis to produce a fair relationship between the existing contract, a revised $3,600 contract, and various other contracts to provide benefits for higher income levels, including one for a $6,000 income level.

Through the use of a model contract, various full-coverage contracts can be developed, as well as contracts providing for deductible provisions and co-insurance provisions. Thus a series of different contracts can be made available to the public in such a way that people can choose the coverage they wish to purchase. It was felt that a deductible contract had some desirable features, but would not be the solution to any of the problems unless people also had a chance to elect a full-coverage contract if they preferred. Our subscribers are many, and we could not possibly disturb them with rate adjustments unless, at the same time, we gave them choices of contracts and benefits. The public—our subscribers and potential subscribers—desire a freedom of choice, both of coverages and of rates which they can pay.

At the meeting of the Medical Advisory Committee where representatives of the specialty groups were assembled, several very important factors were brought into focus. Different groups, of course, had their own pet projects, and by and large, did not contribute to the over-all solution of the Committee's problem. However, the meeting did disclose that in many instances the proposed surgical fee schedule and the schedules for some of the other benefits were actually higher than prevailing charges in many communities. This immediately raised the question of adopting a statewide program which, although it might be saleable, in the long run would tend to increase the cost of medical care to the insured in many communities. This would be an undesirable feature from the point of view of both the public and the physicians. The possibility was pointed out that different levels of contracts might of necessity have to be developed because of the varying levels of fees throughout the different communities in Iowa.

Individual consideration of medical or surgical cases is at best a difficult problem and one which tends to be discriminatory, depending on the information or on the lack of information reported. A margin in premium rates must be provided to allow variations from fee schedules to be paid. Medical services and proper compensation therefore do not readily conform to a fixed schedule, and the need for special consideration

on many situations is apparent. One of the possible solutions to this perplexing situation is to attempt to produce a model contract in terms of benefits, but for which no fee schedule is used except "fair and reasonable charges for services performed." This would make it possible to adjust services and also create a flexibility for unusual cases requiring special consideration. This creates an actuarial problem because, of necessity, calculations must be based on some assumed cost for services performed. Though a fee schedule, that might be used for calculation of premium rates, would not be published, it would of necessity require the fullest cooperation from the participating physicians to see that "fair and reasonable charges" were always maintained.

The Medical Advisory Committee plans to continue its attempts to develop model contracts from the suggestions which have been received and which are continuing to be received. Many of the groups have finally become aroused to the point of solving some of the problems to which they were alerted eight or nine months ago. We feel that through the cooperative efforts of all of the groups and a better understanding of the total problem involved and the ultimate goal that we seek, we shall get this job done in a satisfactory manner. Apparently we need to carry on a further educational program so that the various physician groups and individual doctors may understand the types of benefits that can be or should be provided, the manner in which they can be provided, and the relative costs to the public if they are provided in these various types of contracts.

Blue Shield cannot be used as a tool to settle basic differences existing within the medical profession, but it certainly can become the best public relations tool to the practicing physician. Blue Shield must be sufficiently flexible to meet the varying needs of the economy, and considerable more stress must be placed on the demands of the patient and of the public for a better prepaid medical care program. If the medical profession cannot come up with satisfactory answers in the form of good Blue Shield contracts, the public will seek other means of meeting its need for prepaid medical care.

When the Medical Advisory Committee considered the possibility of offering diagnostic medical service coverage in Blue Shield contracts, it referred the matter to a separate joint Blue Cross-Blue Shield liaison committee for specific study. The latter group has had several meetings trying to resolve the problems that are involved in providing pathology radiology and other diagnostic services as a specific additional coverage to the basic Blue Shield contracts that are under consideration by the Advisory Committee.

The development of a diagnostic service contract is somewhat complicated in that coverage for professional services should be provided not only in the hospital but in the doctor's office and in the outpatient departments of hospitals. Consideration has been given to the idea of pooling arrangements for existing services now in Blue Cross contracts, so that there may be no loss of benefits and no increase in rate to present Blue Cross-Blue Shield subscribers for those services now covered. In addition, it is thought that greater benefits should be extended as a separate alternate coverage to provide diagnostic services in doctors' offices. These would be of great value to the patient, the general practitioner and the internist who perform many of these services outside of the hospital at the present time. However, until the model contracts can be developed and some determinations can be made as to the forms of contracts to be made available, it is very difficult to develop the proper types of diagnostic service contracts unless they fit into the over-all pattern of arrangement for basic contract benefits.

All of the matters brought to your attention in this progress report are most vital to the future of Blue Shield. As the matter now stands, since the Blue Shield program in Iowa is below the standards established in other states throughout the country, we are virtually unable to undertake coverage for large national employers.

Again, let me point out to you that as doctors you have a group of fellow physicians working on these problems, and that they have labored long and unselfishly to develop and operate an organization that will help you to prevent governmental control of the activities of the medical profession. At a later date, through the efforts of all of us, we believe and hope to be able to report some suggested froms of contracts that will provide the answers to many of the problems confronting the profession and the public.

GORDON F. HARKNESS, M.D., *Chairman.*

SUBCOMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

(Unanimously approved by the House of Delegates without referral to a reference committee.)

The Subcommittee on Hospital and Professional Relations wishes to present a statement of commendation for the splendid manner in which Messrs. Philip Cless and John Blanchard conducted the recent hospital-physician trial as legal representatives of the Iowa State Medical Society. The manner in which they presented the doctors' case in this trial which resulted in a favorable ruling for the doctors has brought local and national acclaim to them and the Iowa State Medical Society.

Therefore, this Subcommittee wishes to make a motion for the entire Iowa State Medical Society to commend them.

WALTER D. ABBOTT, M.D., *Chairman.*

SUBCOMMITTEE ON RURAL HEALTH

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

By a recent action of the Executive Council of the State Medical Society the appointment of a rural health contact physician in each county has been approved. These appointments have been made. From the State office in the near future, each contact man will receive information pertaining to his new duties.

Establishment of a rural health contact man in each county should be a most effective step in enhancing the status of the physicians in Iowa. Through the contact man, the various lay organizations having health programs and activities will be able to obtain accurate information and sound advice regarding their projects. The contact also will act as a source through which local physicians can be secured as speakers on health topics at meetings held by these organizations.

It is worthy to note that many of the interested lay organizations are groups now engaged in their own battle to preserve the right of free enterprise. It is important for organized medicine to cooperate with these organizations, for we too are involved in a con-

troversy—a controversy involving the right to practice medicine without deleterious infringements.

It is most essential that each rural health contact physician be given the full support of the total membership in each county society. Every contact man can rest assured that if difficult problems should arise, the Subcommittee on Rural Health, together with the able staff at the State Medical Society, await the opportunity to be of service.

The new Institute of Agricultural Medicine at our university has been most helpful to the Rural Health Subcommittee during the past year. Many of our interests are mutual. Soon the Institute, seeking needed statistical information, will be mailing questionnaires to the rural health contact physicians as well as to a cross-section of the farm population. We can all help, not only in completing the physician questionnaires, but also in urging our farmer friends to cooperate in furnishing their information.

S. P. Leinbach, M.D., *Chairman.*

COMMITTEE ON PUBLIC RELATIONS

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Since the preparation of the report of the Committee on Public Relations, there have been certain developments which your committee considers worthy of attention.

On March 1, 1956, Mr. Gerald Buckles joined the staff of the State Society in the capacity of field secretary. This hiring was in keeping with the request of the House of Delegates and the Executive Council for increased activity in public relations. It is the primary duty of Mr. Buckles to make regular and systematic personal contacts with county medical society officers, public relations men and legislative contact men. In this way the State Society is better able to assist county societies in carrying out their public relations. Mr. Buckles turns in regular reports of his field visits, and these reports are most helpful to the State Office in tailoring public relations projects to the real needs of the counties.

One specific project which your committee feels deserves the attention of the House of Delegates is a proposal that county medical societies support a state-wide newspaper campaign, the space for which is purchased through a fund supported by the county societies on a per-member contribution basis but which is entirely outside the operating budget of the State Society and is supported by the counties on a voluntary basis.

Otto Glesne, M.D., *Chairman.*

Supplemental Reports of Special Committees

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

It is recommended that, in addition to the chairman, the Committee on Emergency Medical Service be composed of one member from each of the eight Civil Defense Areas in Iowa. The duties of each of these members shall be:

1. to aid in the formation of plans for the care of casualties in a disaster as a member of the committee of the State Medical Society,
2. to be prepared to act as the medical director of Civil Defense in his area,
3. to stimulate the organization of medical facilities and personnel for disaster service in the communities of his area,
4. to formulate and, when necessary, execute plans for mutual support between areas in disaster, and
5. to be the medical liaison in his area in time of disaster.

Robert C. Hardin, M.D., *Chairman.*

COMMITTEE ON GROUP INSURANCE

(Referred to the Reference Committee on Professional Insurance for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

At the Annual Meeting last year, the Special Subcommittee to Study Group Insurance was handed a hot potato. The problem: "Study professional liability insurance and determine whether a group plan for such coverage is needed, desirable and workable for the Iowa State Medical Society."

As a starter, the Subcommittee thought it advisable to obtain reactions and suggestions from all available individuals and organizations having experience with group professional liability plans.

The Legal Department of the AMA is currently studying this subject, and last fall it sent out questionnaires to all state medical societies. A partial report of its study was published in the JAMA of February 4, 1956.

Further information has been collected from several well-known authorities on the subject, and from the state society offices in Oklahoma, Georgia, California and New York.

The experience of companies underwriting this business has been very spotty throughout the country, and apparently local circumstances have in large measure been responsible for the variations. One man who has studied this problem in great detail feels that one state was forced into group coverage because of local problems that arose initially from friction between individual physicians. Another state is thought to have been forced into a group plan by reason of doctors' "sniping" at one another. Possibly the poor experience in New York resulted from the high percentage of immigrants practicing there. It is interesting that nearby Pennsylvania can boast one of the best experiences in professional liability insurance in the country.

What is reported by the states that now have group plans in effect?

Oklahoma

1. Members are satisfied.
2. Out of 1,560 doctors, 1,200 are covered.
3. For $10,000/$30,000, the premium is $52; for $150,000/$500,000, it is $86.40.
4. There has been no change in the incidence of liability cases.
5. The main advantage of group coverage is said to be that adjusters and attorneys representing physicians are mutually agreeable to both the association and the company.

Georgia

1. The plan has been in effect only since June 1, 1955.
2. One-half (550) members are covered.
3. As regards incidence, it is still too early to tell.
4. Advantages: (a) There is medical association administration in the event of a malpractice claim; (b) All financial details concerning the program are available to the medical society; and (c) Premium rates are determined on the basis of local experience.

California

1. Some 5,000 physicians are covered.
2. It is believed that the program is best set up at the county-society level. Dr. Joseph F. Sadusk, Jr., who is Chairman of the Medical Review and Advisory Board of the California Medical Association, feels that a group program will work to the benefit of all concerned only if it is *for* the physician and run and monitored *by* the physicians, with the insurance carrier acting essentially as holder of funds.

New York

1. It has been in effect since 1921.
2. The society designates the members eligible.
3. Business is handled through an insurance representative of the society (not an M.D., but an insurance authority) who is responsible for seeing that all provisions of the plan are carried out as intended.

Areas of poor experience in professional liability insurance are also spotty, but the increasing incidence of malpractice suits is general. Reasons for the increase are (1) the public's attitude that it is entitled to something for nothing; (2) that the public is better informed on medical matters than it used to be; (3) a breakdown in the doctor-patient relationship (a failure to reach an agreement on fee prior to the rendering of service); (4) a breakdown in hospital-patient relations which seems inevitably to involve the attending physician; (5) doctors who tend to discredit their colleagues; (6) aggressive attitudes of claims attorneys; and (7) the fact that recoveries of the type received through judgments against physicians are not taxable.

What coverage should a physician have? The answer cannot be a uniform figure, but obviously depends upon the individual's assets and upon his type of practice. The opinion of the experts is that $5,000/$15,000 or $10,000/$30,000 is hopelessly inadequate coverage nowadays. Recommended are $50,000/$150,000 to $300,000/$900,000, depending on the degree of potential hazard in the doctor's practice.

What of premium rates? Premiums may vary from extremely severe, as in California, to quite nominal as in the Southern states. Iowa rates are in the lowest quartile.

What about the companies that write this type of business? Most companies have dropped out of professional liability insurance because of the increasing hazard. The ratio of losses continues to increase in spite of rapid increases in the premium. Some carriers will tackle professional liability insurance only as a part of a "package" including home, automobile and personal-liability insurance.

The reasons for the insurance carriers' dissatisfaction are briefly these: (1) there is a latent liability; (2) losses have increased constantly because of inflation and the increasingly critical attitude of the public, juries and courts; (3) small volume of sales for this type of coverage; (4) dissatisfaction of physicians with progressive increases in premiums, though such increases are the only way in which an insurance carrier can hope to balance the program.

Obviously, the ideal situation would be for the Iowa State Medical Society to design a group plan, if such is desired, and then get some good company to carry it. But that just can't be done for professional liability insurance. Rather, the Society would have to take whatever plan and carrier were available, or would have to persuade some company to take the Society on a trial basis. From a cost standpoint, group coverage for professional liability insurance has little, if any, advantage over individual coverage.

After studying the problem, the Subcommittee finds it obvious that the switch to a group plan of professional liability coverage would not decrease the incidence of malpractice suits. The place to start is at the beginning. To quote in part from a letter from the executive secretary of the Oklahoma State Medical Society: "If we could make one addition to our program, it would be to have a rather complete course of study on this subject in the medical school and in the teaching hospitals for the interns and residents." In Los Angeles county, a physician is not admitted to membership until he has attended at least two regular county society meetings devoted to the discussion of medico-economic problems, including public relations, professional liability insurance and ethics.

To summarize, the Subcommittee feels that the Iowa State Medical Society should not undertake a group plan unless it becomes absolutely essential, and that the question should be determined by a survey of members. A survey is always difficult to conduct, but if such a one as this were answered anonymously, it would indicate whether or not there is general interest in the establishment of a group liability plan, and it could also be used as a means of accumulating detailed information on threats of suits, out-of-court settlements, actual suits and other experience involving charges of malpractice.

GEORGE G. YOUNG, M.D., *Chairman.*

COMMITTEE ON BLOOD BANKING

(Referred to the Reference Committee on Legislation and Public Relations with the exception of the portion of the report dealing with finances, which was referred to the Board of Trustees. For final action by the House of Delegates, see the reports of the above named reference committee and of the board of Trustees.)

The following is intended as a supplement to the report of your committee on Blood Banking which appears on page 61 in the House of Delegates HANDBOOK. Your Committee on Blood Banking has recommended that the Iowa State Medical Society endorse the exchange plan of the North Central District Blood Bank Clearing House.

There is a general lack of knowledge regarding the definition, organization and ultimate purposes of a Blood Bank Clearing House. It is my intention to discuss these points, and to review the major historical events which indicated the need for this organization. Lastly, I should like to inform you of your Committee's specific reasons for asking you to endorse and support the program in our area.

Temporally speaking, the historical background is short, for Blood Banking is still a relative infant despite

the fact that it is expanding administratively and technically with incredible speed. The era from 1936-1942, during the second great world war, introduced a tremendous acceleration of the use of preserved blood and blood products. The U. S. Army alone used approximately 330,000 pints. The American Red Cross entered the picture to help satisfy the emergency requirements, but liquidated its interests in 1942. The first blood bank in the U. S. was organized at Cook County Hospital, Chicago, in 1936. Five years later, in 1941, the first medically sponsored community blood bank was organized in San Francisco by the San Francisco Medical Society. The rapid growth of blood banking soon outstripped all available administrational organization, and in 1947 the U. S. government asked the American Red Cross to re-enter the blood program in order to avoid a repetition of the unpreparedness at Pearl Harbor.

No one can or should belittle the tremendous contribution of the Red Cross in blood banking. Their response was magnificent. Nevertheless, trouble frequently arose between private and Red Cross sponsored blood banks over the much publicized Red Cross "free blood" policy. A widening rift developed between the Red Cross and AMA blood banking policies. In all honesty, we must admit that the American Medical Association had no organization, either officially or unofficially, which could cope with blood banking requirements of this nation.

In 1947, the American Association of Blood Banks was founded. This association is the official organized voice of the American Medical Association in the field of Blood Banking. It represents our first really coordinated effort in this field. Since 1947, The American Association of Blood Banks, wisely guided by a hard corps of experienced and able men from the medical profession, has developed a constructive, broad visioned series of projects which, at this time, has elevated the American Association of Blood Banks to a position of dignity alongside the Red Cross Blood Bank Group.

One of the most promising offsprings of the American Association of Blood Banks is the National Clearing House Program. This plan was proposed in 1953 and organized along the lines of a program already established by the California Blood Bank system. By definition, a blood bank clearing house is a central bookkeeping coordinating agency created and supported by allied blood banks to provide the following basic services:

a) To handle the exchange of donor replacements between blood banks.

b) To facilitate the borrowing and lending of blood between banks wherever and whenever needed.

c) To keep records, balance accounts and arrange settlements to cancel inter-bank indebtednesses.

d) To engage in such auxiliary services as are best conducted through a central agency, for instance, maintaining a registry for rare blood groups; facilitating the salvage of out-dated blood or its derivatives; and acting as an agent for banks in the collection of blood for defense and regional disasters. It must be understood that the Clearing House is not a Blood Bank. It has nothing to do with the procurement of donors, the bleeding of donors or the processing of blood.

Under the national clearing house program, this country is divided into five districts. Our district in the Midwest, with headquarters in Chicago, is known as The North Central District Clearing House, and is composed of 11 states, including North and South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Illinois, Wisconsin, Michigan and Indiana. In October, 1954, the Council of the Illinois State Medical Society agreed to assist the North Central District Clearing House program and lent it the sum of $6,000 to defray expenses incurred by initial organization. Clearing house expenses are met by the transaction fees paid by the member blood banks. Our clearing house is currently charging a fee of 50 cents, and as soon as a sufficient number of blood banks have joined the program, it should be possible to reduce this fee and still meet the financial needs of the organization.

Specifically, how does the clearing house handle the exchange of donor replacements between blood banks? This is accomplished by exchange of paper credits. Each paper credit is in effect an I.O.U. from one blood bank to another which verifies the acceptance of a replacement donor and authorizes crediting of the patient's account as if the donor had actually appeared in the blood bank which originally furnished the blood. The Clearing House makes monthly or quarterly settlements with its member banks. The monetary settlement of indebtedness is possible through the payment to the Clearing House of a $14 donor fee. Blood banks shipping blood are reimbursed by a payment of a $10 fee which covers processing and transportation.

The experience of the California blood bank system, which has used this plan of exchange since 1951, effectively illustrates the benefits in operation. From March, 1951, to January, 1956, the California system handled 113,287 transactions. Seventy-eight per cent of the settlements required neither any actual exchange of blood nor its monetary equivalent.

The volume of transactions in the NCDBBCH has increased steadily from 222 in June, 1955, to 971 in January, 1956. Although the income of the Clearing House has improved proportionately, it is still insufficient to meet the current operating expenses. Most of the $6,000 reserve lent by the Illinois State Medical Society has been expended. The Clearing House has asked its representatives on the Board of Directors from each of the participating states to carry back to their respective organizations a request for a non-interest bearing loan of $1,000 to help the Clearing House through its next year of operation. The Board is convinced that the present rate of growth will wipe out the current operating deficits within one year. The present Clearing House membership of 115 blood banks represents only about 25 per cent of the potential membership in this 11-state district. A concerted effort to publicize the program is now under way.

Realistically, what can the clearing house program do for the doctors and for organized medicine in the State of Iowa? 1) At member blood banks, your patients will be able to reduce their expenses by replacing blood through the donations of relatives at other member blood banks throughout the nation. 2) In these days of extensive travel in high-powered vehicles, development of a smoothly operating reciprocity system throughout the United States becomes increasingly important. Our active participation in this system has a positive public relations value. This system should remain under the control and technical supervision of the medical profession. 3) Blood requirements of any emergency disaster situation in Iowa will be expedited. 4) Your support of this clearing house program is equivalent to a vote of confidence in

yourselves. This is a national medically-sponsored program. Experience has aptly demonstrated that wherever organized medicine has sidestepped responsibility, some other group or government facility has assumed it.

Your Blood Bank Committee recommends that the program of the NCDBBCH be indorsed and supported. Because we have a relatively small proportion of the total number of blood banks in this eleven state area, and because our Society has had unusually heavy expenses during the past two years, your Committee feels that one-fourth to one-half of the requested loan ($250-$500) should be considered adequate to carry our share of the financial responsibility for the coming year. We believe that the National Clearing House program represents a great, well-directed stride toward the goal of effective coordination of blood mobilization resources in this nation. We believe the program should be supported and controlled by the medical profession.

W. S. PHETEPLACE, M.D., *Chairman.*

CHIROPRACTIC COMMITTEE

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The Iowa State Medical Society, forewarned by legal counsel, is aware of the proposed chiropractic bill (S.F. 87 and H.F. 126) which seeks a revision of wording that will liberalize the chiropractic act. This bill progressed dangerously close to presentation during the last session of the General Assembly of the State of Iowa.

The bill seeks to revise the wording of the chiropractic act so as, in effect, to nullify a supreme court ruling, and thereby broaden the scope of chiropractic modalities. It is supported by an industrious and energetic lobby that has obtained considerable recognition in its favor.

Upon legal advice, the Special Chiropractic Committee inaugurated by the Iowa State Medical Society has obtained the following information:

1. There are two chiropractic organizations within the state: the Iowa Chiropractic Association (mixers), and the Chiropractic Society of Iowa (straights). The former group, with national headquarters in Webster City is largely responsible for the present activity relative to the change in the practice act.

2. That the chiropractic school in Iowa, although teaching most of the subjects found in the curricula of medical schools, is below standards relative to its teaching, faculty, library, etc., found in other acceptable institutions teaching the healing arts.

3. That other states have stringent laws curtailing or prohibiting chiropractic procedures and healing cults.

4. That if the chiropractors successfully pass the proposed bill, we are negligent in our responsibility to the health and welfare of the citizens of this state.

5. The Committee is in the process of accumulating an extensive bibliography of the experience of other state medical societies in combating this problem which should prove to be a helpful fund of information.

Therefore, the Chiropractic Committee strongly recommends the following:

1. That the ISMS initiate immediate steps to educate the legislators of this state to the potential dangers of broadening the modalities permitted to chiropractors.

2. That active lobbying be initiated during the next legislative session in order to combat the zealous endeavors of the chiropractors.

3. That the ISMS continue its Chiropractic Committee for another year, so that it may be on guard, watch the situation closely and present its findings to the House of Delegates.

4. That the ISMS consider the advisability of a public relations program, designed to spread information as to cults, quacks and chiropractors.

5. That the ISMS go on record as vigorously opposing the change in wording of the present chiropractic act and inform its members through frequent publications in the bulletin.

BRUCE F. HOWAR, M.D., *Chairman.*

IOWA BAR LIAISON COMMITTEE

(Referred to the Judicial Council sitting as a reference committee. For final action by the House of Delegates, see the report of the Judicial Council.)

The Iowa Bar Liaison Committee was activated following a request from the Iowa Bar Association that a joint committee of the two professions, legal and medical, formulate some type of principles of procedure to govern relations between the members of the two organizations.

This joint committee, consisting of three members from each body, had one formal meeting in Des Moines. At that time, plans currently in operation in five states and one city were studied as guides to our thinking. By letters and telephone following this meeting, we finally arrived at the document which is now in your hands.

It will be noted that the principles are largely general in character, dealing primarily with relations between physicians and attorneys concerning court procedure. Nothing relative to malpractice was involved in this outline. Further, it seemed unwise to include anything resembling disciplinary procedure against members of either profession, even though several other state plans include such provisions.

This document has already been accepted by the Board of Governors of the Iowa Bar Association. It is hoped that this House of Delegates, likewise, will see fit to adopt these principles.

D. C. CONZETT, M.D., *Chairman.*

Resolutions

DALLAS-GUTHRIE COUNTY MEDICAL SOCIETY

RE ATTENDANCE AT ANNUAL MEETING

WHEREAS, The Iowa State Medical Society is composed of members whose prerequisite is that they be licensed Medical Doctors; and whereas, the Annual Medical Society Meeting is held for the dispatch of such business as may come before it and also provides a scientific program and exhibits for the benefit of members,

Now Therefore, Be It Hereby Resolved, By the Dallas-Guthrie County Medical Society, that all persons be barred from attending the Annual Meeting of the Iowa State Medical Society, or exhibits on display at such meeting, except those of the healing arts whose profession is known to be definitely allied, and considered ethical for association with members of the Iowa State Medical Society and members of the American Medical Association, and

Be It Further Resolved, That this resolution be read by the Delegate of Dallas-Guthrie County Society to the House of Delegates at its annual meeting in April, 1956, and it be requested to act upon it as if in a committee of the whole.

R. T. SMITH, M.D., *President.*

With the following amendment which replaces paragraph 2, this resolution was unanimously approved by the House of Delegates without referral to a reference committee.

Now Therefore, Be It Hereby Resolved, That those of the healing arts whose profession is known to be definitely not allied with or is considered unethical for association with members of the Iowa State Medical Society and members of the American Medical Association shall be barred from attending all sessions and exhibits of the Annual Meeting of the Iowa State Medical Society.

HAMILTON COUNTY MEDICAL SOCIETY

RE TRIBUTE TO DR. MARTIN I. OLSEN

(Unanimously approved by the House of Delegates without referral to a reference committee.)

Whereas, In the past several months there has been among some of the members of the Iowa State Medical Society a feeling of discontent or dissatisfaction with the modus operandi of the founctioning of the Iowa Medical Service, and,

Whereas, The guiding light for the Iowa State Medical Society in the functioning of the Iowa Medical Service for many years has been Dr. Martin Olsen, who has devoted an incredible number of hours to his duties and by his astute comprehension of the insurance phases and the professional facets of the Iowa Medical Service has been the pivotal point for the financial and functioning success of the organization, and,

Whereas, Any problem big or small ever brought to his attention by members of the medical profession has always been answered by clear thinking and fact-packed knowledge of the situation with promptness,

Therefore Be It Resolved, That the Iowa State Medical Society go on record as appreciating Dr. Martin Olsen's past and present valuable contributions to the success of the Iowa Medical Service, and,

Be It Further Resolved, That the Iowa State Medical Society go on record as realizing that the present controversial problems now confronting Iowa Medical Service in no way cast reflection on Dr. Martin Olsen's past or present capabilities, guidance, and good judgment.

George A. Paschal, M.D., *Delegate.*

WOODBURY COUNTY MEDICAL SOCIETY

RE PENSION PLAN SURVEY

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Resolved, That the Secretary of the Iowa State Medical Society poll the members of the Iowa State Medical Society as to which pension plan they prefer—the Reed-Keogh Bill or Social Security. The Secretary should ascertain by this poll whether the doctors favor (1) the Reed-Keogh Bill; (2) Social Security; (3) Both; (4) None.

POLK COUNTY MEDICAL SOCIETY

RE COUNTY RESPONSIBILITY FOR INDIGENT PATIENTS

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, Many people are, for various reasons, residing in counties of this State other than those of their legal settlement, and

Whereas, From time to time some of these people become ill and unable to pay for medical care, and

Whereas, These indigent patients often seek and obtain medical care in the community where they are residing, and

Whereas, The responsibility for payment then falls on the county of legal settlement if acknowledged, and

Whereas, A few directors of county welfare departments are refusing to pay for such care, even though responsibility is acknowledged or the care ordered, and

Whereas, The hospital and doctors in the county where service is rendered are unjustly denied payment, and

Whereas, Broadlawns Hospital (Des Moines) and the medical staff specifically are morally obligated to care for patients whose admission to the University Hospitals is pending acceptance or even though acceptable have not been scheduled for admission, and

Whereas, Under these circumstances and although routinely and properly informed and acknowledged by them, some directors consistently ignore or refuse to pay for services at Broadlawns, or pay in amounts far below the claim for usual fees charged in the community, and

Whereas, In the opinion of the Attorney General for the State of Iowa written for Mr. Robert M. Underhill, County Attorney, Onawa, Iowa, and based on Section 252.35 and Section 252.28, 1946 Code of Iowa, the sense of which is "in the absence of any showing that the county (responsible) is being discriminated against or that the . . . charge is more than is usually charged for such services in the neighborhood where such services are rendered, it is the duty of the board of supervisors of the county to authorize payment of such claims," therefore

Be It Resolved, That those physicians serving on consultant or auditing committees of the county welfare boards give cognizance and use their efforts to obtain reciprocal justice in approval and payment of claims submitted for care of patients for whom responsibility has been acknowledged, and

Be It Further Resolved, That such further action as may be indicated be taken to obtain justice in accordance with law.

Submitted by order of the Council of the Polk County Medical Society.

UNION COUNTY MEDICAL SOCIETY

RE REVISION OF "POOR LAWS"

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, Current population movement behavior is that the average family makes a move once every seven years, and

Whereas, The mobility of our people should guarantee freedom of opportunity and care, and

Whereas, The present "poor laws" of our state provide a two year period of residence to establish legal settlement, and

Whereas, Even this settlement can then be invalidated with a service of non-residence essentially leaving the person "without country," and

Whereas, These conditions make indigent care cumbersome and inadequate, and even force illegal practice upon our welfare compatriots in order that they may offer needed care to a large portion of our indigent population, and

Whereas, Iowa is the only state remaining with these antiquated "poor laws,"

Be It Therefore Resolved, That we recommend that our Legislative Committee collaborate with the legislative committee of the State Association of County Welfare Directors in the establishment of remedial legislation in this field.

POCAHONTAS COUNTY MEDICAL SOCIETY

RE BLUE SHIELD EXPLORATION OF NEW CONTRACT OFFERINGS

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, Iowa Medical Service was conceived to provide surgical and medical protection on a pre-payment basis for the public in Iowa, and

Whereas, A service contract was offered to the medically indigent public by Iowa Medical Service as a means of deterring socialized medicine through a program controlled and accepted by a majority of the medical profession in Iowa; and

Whereas, The House of Delegates at its annual meeting in April, 1955, requested Iowa Medical Service to study the possibilities of a contract offering service benefits to the public earning more income than that provided by the present contract, and

Whereas, The Board of Directors of Iowa Medical Service expended much time and effort in conducting this study as requested by the House of Delegates; therefore

Be It Resolved That, This House of Delegates hereby extend thanks to the Board of Directors of Iowa Medical Service for their extensive work in conducting the requested exploration; and

Be It Further Resolved That, The Board of Directors of Iowa Medical Service continue their exploration, and at such time as the results of this exploration can be construed as having been accepted either by the House of Delegates of the Iowa State Medical Society or by a majority poll of the medical profession in Iowa, such a contract be offered to the public of Iowa.

J. M. Rhodes, M.D., *Delegate.*

POLK COUNTY MEDICAL SOCIETY

RE BLUE SHIELD EXPLORATION OF NEW CONTRACT OFFERINGS

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation.

For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, In 1955 the House of Delegates of the Iowa State Medical Society recognized that discrepancies and inadequacies exist in the present Blue Shield fee schedule, and

WHEREAS, The House suggested that interested groups, such as internists, general practitioners and pediatricians make proposals through their appropriate organizations to the Blue Shield Board for suggested changes in the fee schedule, and

WHEREAS, The House also found that the present $3,600 limit is not adequate to supply a growing demand for more coverage by patients in middle and higher income levels, and

WHEREAS, It recommended that exhaustive studies be made by Blue Shield toward providing another and separate full coverage policy embodying higher premiums, higher fees and a top level coverage somewhere above the present limit, and

WHEREAS, The Blue Shield Board has, accordingly, worked diligently to obtain the requested information from various groups and individual practitioners, and

WHEREAS, The development of a new fee schedule is a necessary yardstick for recommendations for changes in the present schedule which would eliminate inequities and inadequacies, and

WHEREAS, Such a revised fee schedule is a necessary base for the future development of contracts with service, deductible, co-insurance and diagnostic service features, and

WHEREAS, The Blue Shield Board and its Medical Advisory Committee have expended countless hours giving freely of time and energy for the future benefit of the medical profession and the public of Iowa, now

Therefore, Bt It Resolved, That the Polk County Medical Society commends Blue Shield and also asks the House of Delegates to express its special thanks to Blue Shield for its work on behalf of Iowa physicians in the interest of the people of Iowa, and

Be It Further Resolved, That the 1956 House of Delegates urges Blue Shield to continue its studies energetically in an attempt to find means to provide various contract offerings to satisfy the needs and desires of the public for better plans to pay the costs of medical care on a voluntary basis, properly guided by the medical profession.

WEBSTER COUNTY MEDICAL SOCIETY

RE BLUE SHIELD EXPLORATION OF NEW CONTRACT OFFERINGS

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, Blue Shield has been sponsored by the Medical Profession in Iowa since April 12, 1945, the founding date of Iowa Medical Service, and

WHEREAS, It has been operating on the service-indemnity principle for benefit of low income families, with two upward adjustments in service income levels to keep pace with our inflationary economy, and

WHEREAS, The House of Delegates of the Iowa State Medical Society at their 1955 Annual Meeting recommended that an exhaustive study be made toward providing another and separate full coverage policy embodying higher premiums, higher fees, and a top level coverage somewhere above the present limit, and

WHEREAS, Much study has been directed to accomplish this objective through district and county medical society meetings, consultations with specialty groups, Blue Shield Board Meetings, etc. which have only served to confuse and divide the profession and will ultimately confuse the general public, and

WHEREAS, There is considerable pressure from the general public, labor unions and government for a budget plan to pay the full cost of usual medical-surgical care and in addition catastrophic illness, to eliminate unknown charges over and above present insurance schemes, and

WHEREAS, The development of a $6,000 service schedule does not nor will not provide the profession or the public with a satisfactory voluntary mechanism to budget for medical care,

Therefore Be It Resolved, That Blue Shield continue to make available their present $3,600 service contract for the low income families and those of higher income desiring that type coverage on an indemnity basis with the understanding that the now gross inequities will be eliminated, and

Be It Further Resolved, That the Iowa State Medical Society approve the concept of Blue Shield's making available to the public a "no fee schedule" policy of medical-surgical services. All services listed in the Blue Shield Certificate would be PAID IN FULL by paying the doctor's fair and reasonable charges for professional services rendered, and

Be It Further Resolved, That the House of Delegates request the Blue Shield Board to make available to the public a variety of full coverage, no-fee-schedule, medical and surgical insurance plans, both on a full-payment basis and on a variety of coinsurance and/or deductible bases, with appropriate and adequate premium rates, and

Be It Further Resolved, That, if and when Blue Shield develops a "no-fee-schedule" program inaugurated by and through cooperation of the 14 medical specialty groups and the Academy of General Practice with the understanding such schedule would establish a "norm" of fair and reasonable fees (which would not be published) and that charges consistently out of range of this schedule to be referred to the local county medical society for action, and

Therefore, Be It Finally Resolved, That the Iowa State Medical Society ask the Blue Shield Board to study immediately the practicability of this program, the estimated cost of premiums, etc. and report their opinions of fact to the Iowa State Medical Society by September 1, 1956.

WOODBURY COUNTY MEDICAL SOCIETY

RE BLUE SHIELD EXPLORATION OF NEW CONTRACT OFFERINGS

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Resolved, That if a way to sell a Blue Shield $6,000 policy be subsequently presented, a co-insurance and deductible policy be furnished simultaneously, and further, if such a policy is presented, a fluctuating fee schedule be provided.

Be It Further Resolved, That no new policy be issued by the Blue Shield Board without the approval of 90 per cent of the participating physicians.

WAPELLO COUNTY MEDICAL SOCIETY

RE POLL ON BLUE SHIELD CONTRACT

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, The Wapello County Medical Society in its regular business meeting held discussion regarding the increase in limits of full service insurance coverage as proposed by the Blue Shield Board, and

WHEREAS, The Wapello County Medical Society voted unanimously in opposition to the proposed increase in income limits, and

WHEREAS, Many members of the Society have during conversations with other members of the Iowa State Medical Society heard considerable opposition to the plan as proposed; therefore, be it

Resolved, That the House of Delegates instruct the officers of all component county societies to poll each member regarding his views as to the acceptability of increased full service coverage to $6,000, and that a 75 per cent participation in this poll be required of these officers. It is suggested that sixty days from adoption of this resolution should be sufficient for said poll and report to the Board of Trustees; and further be it

Resolved, That the House of Delegates of the Iowa State Medical Society instruct the Blue Shield Board to withhold further work on the proposed plan until such a poll can be completed.

E. B. HOEVEN, M.D., *Secretary-Treasurer.*

WOODBURY COUNTY MEDICAL SOCIETY

RE ELECTION OF BLUE SHIELD BOARD MEMBERS

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Resolved, That a member of the Blue Shield Board from the Councilor District be elected by the physicians from his district only and that proxy votes be provided for in the election of such members.

WEBSTER COUNTY MEDICAL SOCIETY

RE BLUE SHIELD REORGANIZATION

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, There is a widespread belief among Iowa physicians that the Iowa Blue Shield organization should be

more active in exploring a wide variety of more effective medical insurance programs, and

Whereas, Past experience has indicated that the present organizational structure of the Blue Shield Corporation makes such activities difficult and slow of achievement, and

Whereas, The membership of the presently constituted Board of Directors is not necessarily composed of doctors in active private practice and is not necessarily representative of all the major fields of private medical practice,

Now, Therefore Be It Resolved, That the House of Delegates of the Iowa State Medical Society actively consider the early complete reorganization of the Iowa Blue Shield Corporation so as to make it administratively subservient to the Iowa State Medical Society, with Blue Shield activities to be under the general supervision of a small board of directors who are active medical practitioners broadly representative of all phases of medical practice, and who shall be adequately compensated for their services so that they may be enabled to afford to devote a suitable amount of their time to this important service to the professional generally.

WEBSTER COUNTY MEDICAL SOCIETY

RE ELECTION OF BLUE SHIELD BOARD MEMBERS

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, The present Board of Directors of Iowa Medical Service is selected, one from each of the eleven (11) councilor districts, plus two or more additional licensed doctors of medicine chosen at large, and

Whereas, The present undemocratic means of medical selections is not representative of the various specialty fields of medical practice, and

Whereas, The present system of nominating and electing Blue Shield Board medical members gives rise to a lop-sided representation with potentialities of present Board members' holding office perpetually,

Therefore, Be It Resolved, That the Iowa State Medical Society take immediate steps to implement changes in the by-laws of Iowa Medical Service which will permit each specialty group and the State Chapter of the Academy of General Practice to appoint or elect one of their members to represent them on the Blue Shield Board and which will permit this group, without the help of the layman members to set the fee schedules and pass on any matters pertaining thereto.

PAGE COUNTY MEDICAL SOCIETY

RE MULTIPLE COUNTY SOCIETIES

(Referred to the Reference Committee on Articles of Incorporation for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, At the present time, two or more county medical societies that wish to amalgamate to form a multiple county society may still have only one delegate for every twenty-five members or major fraction thereof from the new total, and

Whereas, Many county medical societies in the state of Iowa have too small a membership to allow for active functioning as an organized group, with resultant deterioration of group discussion of and group understanding of problems confronting the profession, and resultant failure to hold monthly scientific meetings such as are enjoyed by societies of larger membership, but

Whereas, These same county societies of small membership are loath to relinquish their right to a delegate to the House of Delegates, and

Whereas, The proposed amendment would not change the total representation of any councilor district,

Be It Therefore Resolved, That the Articles of Incorporation and By-Laws of the Iowa State Medical Society be amended to allow two or more county medical societies in any one councilor district to amalgamate to form a multiple county society without the loss of the delegate from each member county society constituting such multiple county society, this with the hope and aim of building a stronger, better-informed state medical society.

POCAHONTAS COUNTY MEDICAL SOCIETY

RE REDEDICATION TO OATH OF HIPPROCRATES

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, There has been much discussion within the profession of high finance, fee schedule inequalities, income limits and insurance coverage, and

Whereas, There has been much public comment that doctors will not make night calls or "week-end" calls, and further that some doctors charge excessively for services,

Therefore Be It Resolved That, We members of the Iowa State Medical Society, in considering problems of medical economics confronting us, not lose sight of the creed of our profession as embodied in the Oath of Hippocrates, and further that by words and actions we attempt to live and work according to this oath.

J. M. Rhodes, M.D., *Delegate.*

DAVIS COUNTY MEDICAL SOCIETY

RE NOMINATIONS FOR COMMITTEE APPOINTMENTS

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Whereas, The President-Elect of the Iowa State Medical Society each year has the responsibility of selecting physicians from the 99 counties who are both willing and able to serve on state committees, and

Whereas, The men thus available will vary from year to year, and

Whereas, The individual county societies will best know who they want to represent them in these committee activities, from proved ability, skill and interest already demonstrated in county society activities, and

Whereas, The Iowa State Medical Society has for each of the past two years been receiving upon request these nominations from the counties, and

Whereas, This has been proceeding in an orderly and highly satisfactory manner in keeping with a year by year adoption of this procedure, and

Whereas, This method of nomination and selection is preeminently fair, democratic and certain to build, foster and develop the very best liaison between county and state medical society activities over the years, be it therefore

Resolved, That the Davis County plan of nominating two or more physicians for state committee assignment for each delegate to which that county is eligible and entitled be made permanent.

Paul T. Meyers, M.D., *Delegate.*

Dr. George Scanlon, trustee, gave a brief report on the Iowa State Medical Society Educational Fund, and then introduced the four State University of Iowa medical students who attended the annual meeting as guests of the Iowa State Medical Society.

Dr. L. A. Coffin, President, presented three awards for essays that had been written in the contest sponsored by the Association of American Physicians and Surgeons.

The House of Delegates approved a message to be sent to Dr. T. L. Ward, Councilor for the Third District, expressing regret at his inability to attend this annual meeting because of illness.

A letter was presented announcing the resignation of Dr. P. W. Brecher as Councilor for the Fourth District. This letter of resignation was accepted by the House of Delegates.

Under new business, the House of Delegates then approved life and associate membership for 32 physicians.

ON THE BASIS OF 50 YEARS' PRACTICE AND 30 YEARS' MEMBERSHIP:

Benton	Marshall E. Dingman, M.D., Urbana
Black Hawk	James R. Thompson, M.D., Waterloo
Clayton	Joseph W. Hudek, M.D., Garnavillo
Jasper	Leslie L. Smead, M.D., Newton
Linn	Harry E. Pfeiffer, M.D., Riviera Beach, Fla., and Rudolph A. Vorpahl, M.D., Cedar Rapids
Lucas	Harry D. Jarvis, M.D., Chariton
Marshall	Louis L. Bowie, M.D., and R. E. Keyser, M.D., Marshalltown
Pocahontas	Charles L. Jones, M.D., Gilmore City
Polk	Thomas A. Burcham, Sr., M.D., Robert L. Parker, M.D., and Malcolm Royal, M.D., Des Moines
Webster	Albert E. Acher, M.D., and James H. Bruce, M.D., Fort Dodge
Woodbury	Guy E. Barr, M.D., Sioux City, Roy M. Conmey, M.D., Sergeant Bluff, and J. George Stolley, M.D., Moville

ON THE BASIS OF INCAPACITATION

Cass	Walter W. Kitson, M.D., Atlantic
Dubuque	Walter Cary, M.D., Sepulveda, Calif.
Hamilton	Robert C. Crumpton, M.D., and Forrest F. Hall, M.D., Webster City
Harrison	Clemmet W. Byrnes, M.D., Dunlap
Lee	Valentine T. Doering, M.D., Fort Madison
Monroe	Walter S. Chester, M.D., Albia
Polk	Audra James, M.D., and John B. Synhorst, M.D., Des Moines, and George McCreight, M.D., Carmel Valley, Calif.
Wapello	Ralph J. Selman, M.D., Ottumwa
Woodbury	Emma Ackerman, M.D., and Allen C. Starry, M.D., Sioux City
Wright	John R. Christensen, M.D., Eagle Grove

There were two nominations for the Outstanding General Practitioner Award—Dr. Elizabeth Smith-Kennedy of Fayette county, and Dr. T. M. Redmond, of Jones county. These nominations were referred to the Reference Committee on the General Practitioner Award.

The House approved a motion presented by the Secretary of the Society on behalf of the Board of Trustees ratifying, confirming and approving the acts of the trustees and officers of the Society in the conduct of the business of the Iowa State Medical Society during the past year.

The Speaker then called on the Councilors of the respective districts to provide the names of representatives to serve on the Nominating Committee. They were as follows:

1st District, O. H. Banton, Charles City
2nd District, T. E. Davidson, Mason City
3rd District, G. H. Keeney, Mallard
4th District, H. E. Farnsworth, Storm Lake
5th District, J. G. Fellows, Ames
6th District, D. D. Harris, Marshalltown
7th District, D. F. Ward, Dubuque
8th District, L. C. Pumphrey, Keokuk
9th District, E. A. Larsen, Centerville
10th District, P. F. Chesnut, Winterset
11th District, C. V. Edwards, Council Bluffs

The Speaker suggested that the Nominating Committee hold its first meeting at the close of the first session of the House of Delegates. He reminded the various reference committee chairmen of the Monday morning breakfast and urged all the delegates to attend the reference committee meetings scheduled to begin at 8:00 A.M., Monday, April 23.

He instructed all delegates to complete a registration card to be handed in at the door of the House of Delegates, Wednesday morning, and told them that the House of Delegates would convene promptly at 7:30 A.M.

The House of Delegates was declared in recess at 6:20 P.M.

WEDNESDAY MORNING SESSION APRIL 25, 1956

The Wednesday morning session of the House of Delegates was called to order at 7:30 A.M. The House of Delegates approved taking attendance by registration cards. Ninety-three delegates and 16 voting alternates were seated.

County	*Delegate*	*Alternate*
Adair	A. S. Bowers	
Adams	C. L. Bain	
Appanoose	E. A. Larsen	
Audubon	H. K. Merselis	
Black Hawk	R. C. Miller	
	C. A. Waterbury	
	C. D. Ellyson	
	T. L. Trunnell	
Boone	R. L. Wicks	
Bremer	R. E. Shaw	
Buchanan		P. T. Leehey
Buena Vista	H. E. Farnsworth	
Calhoun	Paul Ferguson	
Carroll	J. M. Tierney	
Cass	R. H. Moe	
Cerro Gordo	H. G. Marinos	
	T. E. Davidson	
Chickasaw		C. W. Clark
Clarke	H. E. Stroy	
Clay	D. H. King	
Clinton	R. F. Luse	
	V. W. Petersen	
Dallas-Guthrie	W. A. Castles	
Davis	P. T. Meyers	
Decatur	K. R. Brown	
Delaware	J. E. Tyrrell	
Des Moines	F. G. Ober	
	E. P. Russell	
Dubuque	R. J. McNamara	
	D. F. Ward	
	P. J. Laube	
Emmet	J. P. Clark	
Fayette	A. F. Grandinetti	
Floyd	O. H. Banton	
Hamilton	G. A. Paschal	
Hardin	P. A. McLaughlin	
Harrison	A. C. Bergstrom	
Howard	C. W. Rainy	
Humboldt	J. H. Coddington	
Iowa	D. F. Miller	
Jasper	J. W. Billingsley	
Jefferson	J. W. Castell	
Johnson	R. C. Hardin	
	L. H. Jacques	
	W. M. Keettel	
	W. M. Kirkendall	
	C. E. Schrock	
	S. C. Ware	
Jones	T. M. Redmond	
Kossuth	J. M. Schutter	
Lee	L. C. Pumphrey	
Linn	C. H. Stark	W. J. Moershel
	J. J. Keith	E. H. Files
	J. J. Redmond	
Lucas	A. L. Yocom	
Madison	P. F. Chesnut	
Mahaska	G. W. Bennett	
Marion		D. A. Mater
Marshall	D. Dale Harris	
Mills	M. L. Scheffel	
Montgomery	Oscar Alden	
Muscatine	K. E. Wilcox	
O'Brien		C. E. Vorhes
Osceola	T. J. Carroll	
Page	S. T. Ramsdell	
Palo Alto	H. G. Keeney	
Pocahontas	J. M. Rhodes	
Polk	D. F. Crowley, Jr.	W. D. Abbott
	T. A. Bond	A. L. Jenks
	F. M. Burgeson	
	F. C. Coleman	
	J. T. McMillan	
	G. E. Mountain	
	N. W. Irving	
	D. C. Wirtz	
	M. T. Bates	
	E. P. Lovejoy	
Pottawattamie	C. V. Edwards	H. W. Mathiasen
		F. E. Marsh
Ringgold	D. E. Mitchell	
Scott	J. F. Bishop	A. J. Lenzmeier
	J. H. Sunderbruch	
Shelby	L. V. Larsen	
Sioux		M. O. Larson
Story	J. G. Fellows	
	G. E. McFarland	
Tama	C. W. Maplethorpe	
Union	H. J. Peggs	
Van Buren	J. T. Worrell	
Wapello	W. C. Wolfe	P. D. McIntosh
Warren	L. E. Hooper	
Washington		C. A. Boice
Wayne	C. N. Hyatt	
Webster	C. J. Baker	
	H. H. Allen	
Winneshiek	E. F. Hagen	
Woodbury	F. D. McCarthy	R. N. Larimer
	A. Q. Johnson	
	P. D. Knott	
	P. L. Bettler	
Wright		C. P. Hawkins

OFFICERS PRESENT AS EX-OFFICIO MEMBERS OF THE HOUSE

L. A. Coffin	S. D. Porter
W. L. Downing	E. F. Van Epps
R. F. Birge	S. W. Corbin
N. B. Anderson	C. H. Flynn
H. J. Smith	Fred Sternagel
A. F. Fritchen	G. H. Scanlon
C. O. Adams	E. M. Kersten
P. W. Brecher	R. N. Larimer
B. F. Howar	

Minutes of the April 22 meeting of the House of

Delegates were read and approved. The election followed and the following physicians were chosen:

President-Elect	Fred Sternagel, West Des Moines
Vice President	W. M. Sproul, Des Moines
Trustee	W. D. Abbott, Des Moines
Speaker of the House of Delegates	H. J. Smith, Des Moines
Vice Speaker of the House	S. C. Cullen, Iowa City
Councilors, 2nd District	J. E. Houlahan, Mason City
4th District	P. W. Brecher, Storm Lake
7th District	E. F. Van Epps, Iowa City
9th District	S. W. Corbin, Corydon
Delegates to the AMA	R. N. Larimer, Sioux City
	F. C. Coleman, Des Moines
Alternate Delegates to the AMA	H. W. Mathiasen, Council Bluffs
	C. H. Stark, Cedar Rapids

Dr. F. H. Rodemyer, of Sheffield, was elected to life membership by the House of Delegates.

Reference Committee Reports

The following reference committee reports were presented and approved by the House of Delegates.

INSURANCE AND MEDICAL SERVICE

Open hearings were held the morning of April 23, 1956 on the 11 items referred to the Reference Committee on Insurance and Medical Service by the House of Delegates.

They were:

I. *The Resolution of the Pocahontas County Medical Society* for the continuation of exploration by the Board of Directors of Iowa Medical Service of the possibilities of a contract offering service benefits to subscribers having a greater income than that provided for by the present contract. This Resolution further provided that the House of Delegates extend thanks to the Board of Directors of Iowa Medical Service for their extensive work in conducting the requested exploration.

Your committee recommends acceptance of this Resolution.

Mr. Speaker, I move the acceptance of this portion of the Report.

II. *The Resolution of the Polk County Medical Society* commending Blue Shield and asking the House of Delegates to express thanks to Blue Shield for its work in behalf of Iowa physicians in the interests of the people of Iowa. The Resolution further asks that the 1956 House of Delegates urge Blue Shield to continue its studies in an attempt to find means to provide various contract offerings to fit the needs and desires of the public for better plans to pay the costs of medical care on a voluntary basis under proper guidance of the medical profession.

Your committee recommends the acceptance of this Resolution.

Mr. Speaker, I move the acceptance of this portion of the Report.

III. *The Resolution of the Webster County Medical Society,* in five parts:

A. That Blue Shield continue to make available its present $3,600 service contract for low income families and those of higher income desiring the coverage on an indemnity basis.

Your committee recommends acceptance of this part of the Resolution.

B. That the Iowa State Medical Society approve the concept of Blue Shield's making available to the public a "no fee schedule" policy of medical-surgical services. All services would be paid in full by paying the doctors fair and reasonable charges for professional services rendered.

The committee recommends the acceptance of this part of the Resolution with the amendment that the words "no fee schedule policy of medical-surgical services" at the end of the first sentence be deleted and replaced by the phrase, "policy allowing the physician his usual fee for medical-surgical services." The committee feels that the term "no fee schedule" is confusing and suggests the coining of another phrase, should such be necessary.

Your committee recommends acceptance of this part of the Resolution, as amended.

C. That the House of Delegates request the Blue Shield Board to make available to the public a variety of full coverage medical and surgical insurance plans allowing the physician his usual fee both on a full payment basis and on a variety of co-insurance and/or deductible bases with appropriate and adequate premium rates.

Your committee recommends acceptance of this part of the Resolution, amended to delete "full coverage" and substitute "full service."

D. That if and when Blue Shield develops a program paying the physician his usual fee inaugurated by and through cooperation of the 14 medical specialty groups and the Academy of General Practice, there would be an understanding that such schedule would establish a norm of fair and reasonable fees (which would not be published) and charges consistently out of range of this schedule would be referred to the local medical society for action.

Your committee recommends not accepting this part of the Resolution.

E. That the Iowa State Medical Society ask the Blue Shield Board to study immediately the practicability of this program, the estimated cost of premiums, etc., and report their opinions of fact to the Iowa State Medical Society by September 1, 1956.

Your committee recommends not accepting this part of the Resolution.

Mr. Speaker, I move the acceptance of this portion of the Report.

IV. *Resolution of Woodbury County Medical Society* that if a way to sell the Blue Shield $6,000 policy be subsequently presented, a co-insurance and deductible policy be furnished simultaneously and, further, if such a policy is presented, a fluctuating fee schedule be provided.

That, further, no new policy be issued by the Blue Shield Board without approval of 90 per cent of the participating physicians.

The Reference Committee recommends not accepting this Resolution because the first portion of the Resolution is covered in essence by the Webster County Resolution, and the second portion is deemed impractical.

Mr. Speaker, I move the acceptance of this portion of our Report.

V. *Resolution of Wapello County Medical Society* that the House of Delegates instruct the officers of all component county societies to poll each member regarding his views as to the acceptability of increased full service coverage to $6,000 and that a 75 per cent participation in this policy be required of those officers. It is suggested that 60 days from the adoption of this Resolution should be sufficient for said poll and report to the Board of Trustees.

That, further, the House of Delegates of the Iowa

State Medical Society instruct the Blue Shield Board to withhold further work on the proposed plan until such a policy can be completed.

Your Reference Committee recommends that no action be taken on this Resolution inasmuch as the Blue Shield Board has already been authorized to make the study and have not as yet submitted a plan for approval.

Mr. Speaker, I move the acceptance of this portion of the Report.

VI. *Resolution of Woodbury County Medical Society* that a member of the Blue Shield Board from the Councilor District be elected by the physicians from his district only and that proxy votes be provided for in the election of such members.

The Reference Committee recommends that this Resolution not be accepted. It does, however, suggest that the newly established Liaison Committee select a slate of candidates from each Councilor District from which the member would be elected by mail ballot by the physicians of his district.

Mr. Speaker, I move the acceptance of this portion of the Report.

VII. *Resolution of Webster County Medical Society* asking consideration of the reorganization of the Iowa Blue Shield so as to make it administratively subservient to the Iowa State Medical Society.

Your Reference Committee recommends that this Resolution not be accepted because of potential legal technicalities.

Mr. Speaker, I move the acceptance of this portion of the Report.

VIII. *Resolution of the Webster County Medical Society* that the Iowa State Medical Society take immediate steps to implement changes in the by-laws of Iowa Medical Service which will permit each specialty group and the state chapter of the Academy of General Practice to appoint or elect one of its members to represent them on the Blue Shield Board, and this group without the help of the layman members set the fee schedules and pass on any matters pertaining thereto.

The Reference Committee recommends that this Resolution not be accepted for the reason that we believe such a Board would be particularly unwieldy and that the newly formed Liaison Committee serves much the same purpose. However, it suggests that each specialty group and the Iowa Academy of General Practice appoint a liaison man to meet with the Blue Shield Board on pertinent matters.

Mr. Speaker, I move the acceptance of this portion of the Report.

IX. *Supplemental Report of the Committee on Medical Services.*

Your Reference Committee wishes to commend the members of the Committee on Medical Service for its fine report concerning closed-panel and union-sponsored plans for medical care. The point is also well made that a demand for improvement of Blue Shield plans is now coming from the public and that if Blue Shield cannot offer the requested improvements, the public may find other means of financing health care less favorable to the medical profession.

The Reference Committee recommends the acceptance of this Supplemental Report.

Mr. Speaker, I move the acceptance of this portion of our Report.

X. *Supplemental Report of the Sub-committee on Prepayment Insurance.*

This fine report points up the need for flexibility of Blue Shield plans because of current changes of attitudes and circumstances.

Your Committee recommends acceptance of this Supplemental Report.

Mr. Speaker, I move the acceptance of this portion of our Report.

XI. *Progress Report of the Medical Advisory Committee.*

This comprehensive report portrays the problems and ideas of the Medical Advisory Committee relative to investigation of the feasibility of a model contract with higher benefits.

Your Committee recommends the acceptance of this Progress Report.

Mr. Speaker, I move the acceptance of this portion of our Report.

* * * *

There have developed from the open hearings on the items referred to this Committee and in our subsequent deliberations on them, certain ideas and suggestions which, at the risk of over-extending our prerogatives, we feel impelled to pass on to the House of Delegates.

We are impressed with the desirability of conserving Blue Shield as the physician-sponsored insurance plan. It is the expressed opinion of our Congressional delegation that Blue Cross-Blue Shield offers the best bulwark against socialized medicine. Blue Shield serves as a competitive pattern for commercial health insurance companies and tends to keep down the costs of such insurance. Blue Shield prevents the domination of the medical profession by the commercial insurance companies. Blue Shield lessens the danger from closed-panel plans.

It would seem that the development of several additional plans would be indicated such as one with a higher income limit than that now in effect, ventures in co-insurance and deductible insurance plans, catastrophe insurance plans which might be unlimited as to income, and experimentation with a plan with a diagnostic rider.

We are intrigued by and suggest the study of a unit fee schedule similar to that used in California, with the possible utilization of such a schedule in a Blue Shield plan.

The Committee is interested in the ultimate feasibility of a plan without a fee schedule.

Our Committee favors the proposed trial of several new plans on an experimental basis in a limited area.

The Reference Committee on Insurance and Medical Service wishes to commend the Blue Shield Board in discharging their obligation to the House of Delegates by making their study of a plan involving a higher income level.

Mr. Speaker, I move the acceptance of this portion of the Report.

* * * *

Mr. Speaker, I move the acceptance of this Report as a whole.

* * * *

I wish to thank the members of my Committee, whose interest, industry and diligence have facilitated the preparation of this Report.

C. H. FLYNN, M.D., *Chairman*
H. G. MARINOS, M.D.
R. L. WICKS, M.D.
J. M. RHODES, M.D.
R. E. SHAW, M.D.

LEGISLATION AND PUBLIC RELATIONS

The report of the Special Committee on Blood Banking as it appeared in the HANDBOOK was referred to the Reference Committee on Legislation and Public Relations. This included a recommendation that the Iowa State Medical Society endorse the exchange plan of the North Central District Blood Bank Clearing House. This HANDBOOK report was favorably considered by our committee.

Mr. Speaker, I move approval of the HANDBOOK report of the Special Committee on Blood Banking.

The supplemental report of the Special Committee on Blook Banking, except for that portion dealing with a monetary contribution to the North Central District Blood Bank Clearing House, was referred to our committee and was favorably considered.

I move approval of the supplemental report of the Special Committee on Blood Banking.

Our reference committee considered the report of the Committee on National Emergency Medical Service as it appears in the HANDBOOK and as modified by the supplemental report read to the House of Delegates on April 22. We recommend acceptance of the report as modified by the supplemental report.

Mr. Speaker, I move acceptance of this portion of the report.

The supplemental report of the Committee on Legislation was considered in the form in which it was reported to the House of Delegates on Sunday, April 22. Your committee was in agreement with the report as read.

Mr. Speaker, I move the acceptance of the supplemental report of the Committee on Legislation.

The supplemental report of the Committee on Public Relations was referred to our committee. It was considered and discussed in open meeting. Our committee found it to be acceptable as read to the House of Delegates on Sunday.

Mr. Speaker, I move acceptance of the supplemental report of the Committee on Public Relations.

The supplemental report of the Subcommittee on Rural Health was referred to our committee. We find the report acceptable.

Mr. Speaker, I move acceptance of the supplemental report of the Subcommittee on Rural Health.

The supplemental report of the Special Chiropractic Committee was submitted to our committee for consideration. We find the supplemental report acceptable as read to the House of Delegates on Sunday.

Mr. Speaker, I move the acceptance of the supplemental report of the Special Chiropractic Committee.

The resolution read to the House of Delegates by the Woodbury County Medical Society on Sunday was considered and, in consultation with a member of the Legislative Committee, the original resolution was modified to read as follows: "Resolved that the Legislative Committee of the Iowa State Medical Society poll the members of the Iowa State Medical Society as to which pension plan they prefer—the Reed-Keogh Bill or Social Security, and such further pertinent information concerning pension plans as may be desired by the Legislative Committee."

Mr. Speaker, I move acceptance of this portion of the report.

The resolution introduced by the Polk County Medical Society pertaining to the responsibility of the county of legal settlement of an indigent patient for payment of medical bills incurred by him in another county was submitted to our reference committee. The seventh paragraph thereof was changed by adding the words "and similar institutions and the medical staffs thereof" so that the paragraph reads as follows: "Whereas, Broadlawns Hospital (Des Moines) and similar institutions and the medical staffs thereof are morally obligated to care for patients . . ." The tenth paragraph was changed by inserting the words "be apprised annually of their responsibility in this matter by the Iowa State Medical Society" after the words "county welfare boards" so that the paragraph now reads, "Be it resolved that those physicians serving on consultant or auditing committees of the county welfare boards be appraised anually of their responsibility in this matter by the Iowa State Medical Society and give cognizance and use their efforts to obtain reciprocal justice . . ."

Mr. Speaker, I move acceptance of this amended resolution.

The resolution introduced by the Union County Medical Society dealing with the related problem of indigent care of transient population was considered in conjunction with the Polk County resolution. The Union County resolution is recommended for adoption as read, with the following change: In the final paragraph strike out the words "collaborate with" and insert the word "support." The paragraph as amended reads, "Be it therefore resolved that we recommend that our Legislative Committee support the legislative committee of the State Association of County Welfare Directors in the establishment of remedial legislation in this field."

Mr. Speaker, I move adoption of this amended resolution.

We appreciate the interest manifested by the members of the Society who appeared before our committee and who provided the committee with useful information. I also wish to extend my sincere thanks to the other members of my committee.

Mr. Speaker, I move the adoption of this report as a whole.

V. W. Petersen, M.D., Clinton, *Chairman*
J. M. Tierney, M.D., Carroll
D. G. Sattler, M.D., Kalona
H. J. Peggs, M.D., Creston

MISCELLANEOUS BUSINESS

The Reference Committee on Miscellaneous Business met at 8:00 A.M. on April 23, 1956, to study the following matters which had been referred to it:

1. *The Resolution of Pocahontas County Medical Society* pertinent to the Oath of Hippocrates. The committee was in sympathy with the content and intent of the Resolution but does not recommend adoption of the Resolution, feeling this action to be unnecessary.

Mr. Speaker, I move adoption of this section of our report.

2. *The Resolution of the Davis County Medical Society.* In view of the fact that this Resolution is no way restricts the freedom of the officers of this Society to choose committee members, we recommend its adoption with the following change:

That the last paragraph of the Resolution which reads, "Resolved, that the Davis County plan of nominating two physicians for state committee assignment for each delegate to which that county is eligible and

entitled be made permanent," be changed to read, "Resolved that the plan of nominating two or more physicians for state committee assignment for each delegate to which that county is eligible and entitled be made permanent."

Mr. Speaker, I move adoption of this Resolution, as amended.

3. *The Report of the Subcommittee on Chronic Illness.* We recommend adoption of this report as it appears in the HANDBOOK on pages 47 and 48; and recommend that each of the county medical societies or multi-county medical societies either appoint a committee or urge the local health officer to consider those measures necessary for the adequate control of local nursing homes.

In addition, we recommend that the medical profession in Iowa cooperate with the Iowa Nursing Home Association and seek the establishment and maintenance of more exacting standards for nursing homes as outlined in the Subcommittee's report.

Mr. Speaker, I move the adoption of this report of the Subcommittee on Chronic Illness.

4. *The Report of the Subcommittee on Mental Health* appearing on pages 52 and 53 in the HANDBOOK. Consideration of this report was complicated by the fact that no members of the Subcommittee, which obviously did much fine work during the year, attended the Reference Committee meeting.

We discussed the problems presented and have been informed that the Governor has appointed a Citizens' Committee which is now functioning in keeping with the recommendations of the Subcommittee.

We are also informed that the use of an outside survey to make and submit recommendations to the Citizens' Committee is being considered.

Recommendation is made for the approval of the Report of the Subcommittee on Mental Health with the modification that steps be taken to consider the feasibility of setting up a training and research program through the assistance of the State University of Iowa College of Medicine and State Mental Hospitals to inaugurate better treatment facilities in the State Mental Hospitals rather than to take steps immediately to institute such a program as is recommended in the Subcommittee's report.

It should be mentioned that the Reference Committee supports the Subcommittee on Mental Health in definitely opposing any enlargement of county home facilities to care for the mentally ill unless the individual county can provide an adequate staff to furnish physical and medical supervision for proper treatment.

Mr. Speaker, I move adoption of this amended report.

Mr. Speaker, I move the adoption of the report of the Committee as a whole.

FLOYD M. BURGESON, M.D., *Chairman*
C. V. EDWARDS, M.D.
D. F. WARD, M.D.
W. M. KIRKENDALL, M.D.

ARTICLES OF INCORPORATION AND BY LAWS

The Reference Committee on Articles of Incorporation and By Laws concerned itself principally with two documents: one, the resolution of the Page County Medical Society; and the other, the Supplemental Report of the Committee on Articles of Incorporation and By Laws.

This Reference Committee expresses its realization of and its sympathy with the problems confronting those county societies whose membership is small. The Page County resolution is designed to bring relief to these groups. However, the resolution will not be presented to the House for approval since the changes it requests are embodied in recommendations for changes in the Articles and By Laws as worked out in committee.

The following changes in Articles and/or By Laws of the Iowa State Medical Society suggested by the Committee on Articles of Incorporation and By Laws are endorsed, and in some instances revised, by this Committee.

1. Article IV, Section 10, Line 8—Replace the present wording as follows: "He shall collect and keep account of all dues and all other money due the Society. He shall turn over to the Treasurer all funds of the Society which come into his hands except in instances when he is otherwise ordered by the Board of Trustees."

In Chapter X, Section 5, Line 3, change the word "Treasurer" to read "Secretary."

Mr. Speaker: I move the adoption of this portion of the report.

2. In Article V, Section 4, last line, add the words "life and active" before the word "members."

In Chapter II, Section 1, Line 3, add the words "active and life" before the word "members" in the sentence which begins "Only registered."

Mr. Speaker: I move the adoption of this portion of the report.

3. Article IV, Section 16, Line 4, following the word "Vice-President," add the words "the Speaker of the House of Delegates."

Mr. Speaker: I move the adoption of this portion of the report.

4. To permit the consolidation of two or more county societies without loss of their delegate representation, in Chapter III, Section 3, Line 3, following the words "send one delegate," add the following "from each county within the component society."

Mr. Speaker: I move the adoption of this portion of the report.

5. In Chapter VI, Section 3, revise the entire section to read as follows: "Any component society which fails to pay annual dues, or make the reports of delinquent members or such other reports required, on or before March 1, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society, or of the House of Delegates, until such requirements have been met. Suspended members cannot be reinstated until the indebtedness for which they were dropped from the membership roll of the Society has been discharged. Such indebtedness shall apply only to the one year of delinquency."

Mr. Speaker: I move the acceptance of this portion of the report.

6. To provide for representation to the Iowa State Medical Society by Blue Shield representatives, the following changes are recommended:

a. In Chapter V, Section 1, add to the list of standing committees "Blue Shield Liaison Committee."

b. In Chapter V, add the following new section:

"Section 18—The Blue Shield Liaison Committee shall consist of three members of the Board of Trustees. This committee, acting with three physician mem-

bers of the Board of Directors of Iowa Medical Service, elected by Iowa Medical Service, shall annually select two Blue Shield representatives to the Iowa State Medical Society, who shall serve as the Blue Shield representatives to the House of Delegates as provided in Article VI, Section 1, and as the Blue Shield representatives to the Executive Council as provided in Article IV, Section 16.

c. In Article VI, Section 1, insert the following new sentence immediately prior to the last sentence of Section 1:

"Each of the two physician members of the Board of Directors of Iowa Medical Service who are members of the Iowa State Medical Society (hereby designated as Blue Shield representatives) shall be an ex-officio member of the House of Delegates without the right to vote unless that physician be at the same time a duly elected Delegate."

d. In Article IV, Section 16, Line 5, change the period at the end of Line 5 to a comma and add the following: "and two Blue Shield representatives, ex-officio, without the right to vote unless they, or one or the other of them, be at the same time a member of the Executive Council in another capacity and thus entitled to vote.

Mr. Speaker: I move the adoption of this portion of the report.

Mr. Speaker: I move the acceptance of this report as a whole.

Respectfully submitted,
J. F. Bishop
L. C. Pumphrey
J. G. Fellows
P. L. Bettler
D. H. King

To implement the changes recommended by the Reference Committee on Articles of Incorporation, the following resolutions were approved by the House.

Be It Resolved, That the foregoing Amendments to the Amended and Substituted Articles of Incorporation of Iowa State Medical Society adopted on the 27th day of April, 1955, first having been presented to the House of Delegates on the 22nd day of April, 1956, at the annual meeting of the corporation and society and thereafter duly referred to a Reference Committee on Articles and By Laws for study and report, which Committee has reported favorably on said Amendments, be and they are hereby adopted at this annual meeting of the corporation or society acting through its House of Delegates this 25th day of April, 1956.

Be It Further Resolved, That the Chairman of the Board of Trustees and the Secretary of the Iowa State Medical Society be and they are hereby authorized and directed to sign, acknowledge, record and publish said Amendments as the First Amendments to the Amended and Substituted Articles of Incorporation of Iowa State Medical Society adopted on the 27th day of April, 1955, and to do all other things required, by law or otherwise, to execute, complete and place in lawful effect said Amendments.

Be It Resolved, That the foregoing Amendments to the By Laws of the Iowa State Medical Society as adopted on the 27th day of April, 1955, first having been presented to the House of Delegates on the 22nd day of April, 1956, at the annual meeting of the corporation and society and thereafter duly referred to a Reference Committee on Articles and By Laws for study and report, which Committee has reported favorably on said Amendments, be and they are hereby adopted at this annual meeting of the corporation or society acting through its House of Delegates this 25th day of April, 1956.

Be It Further Resolved, That the Chairman of the Board of Trustees and the Secretary of the Iowa State Medical Society be and they are hereby authorized and directed to sign, acknowledge and publish said Amendments as the First Amendments to the By Laws of Iowa State Medical Society as adopted on the 27th day of April, 1955, and to do all other things required, by law or otherwise, to execute, complete and place in lawful effect said Amendments.

PROFESSIONAL INSURANCE

We have considered the report of the special committee on Group Insurance and agree with its content and recommendations.

Mr. Speaker, we move the adoption of this report.

P. F. Chesnut
C. H. Stark
W. C. Wolfe

REPORTS OF OFFICERS

Your Reference Committee for consideration of the Reports of Officers has had referred to it the supplementary report of the Board of Trustees.

This Committee has amended the Supplementary Report by striking the word "assessment" wherever it appears in the report and substituting in lieu thereof the word "dues."

Mr. Chairman, I move the adoption of the Supplementary Report of the Board of Trustees, as amended by your Committee.

E. A. Larsen, M.D., *Chairman*
J. W. Billingsley, M.D.
C. A. Waterbury, M.D.
D. C. Koser, M.D.
G. A. Paschal, M.D.

GENERAL PRACTITIONER AWARD

The Committee met and selected Thomas M. Redmond, M.D., of Monticello, as Iowa General Practitioner of the Year.

H. K. Merselis, M.D., *Chairman*
Ralph Moe, M.D.
Paul Brecher, M.D.

BOARD OF TRUSTEES

The Reference Committee on Legislation and Public Relations had referred to it the Report of the Committee on Blood Banking which appeared in the House of Delegates HANDBOOK and a supplemental report.

In the supplemental report, there was a request to the Iowa State Medical Society to make a non-interest-bearing loan to the North Central Blood Bank Clearing House in the amount of $250 or $500.

The Board of Trustees has considered this request and has approved a loan of $500.

Mr. Speaker, I move that the House of Delegates approve this action of the Board of Trustees.

Fred Sternagel, M.D.,
Chairman, Board of Trustees

JUDICIAL COUNCIL

ON THE REPORT OF THE IOWA BAR LIAISON COMMITTEE

The Council strongly endorses the desirability of an agreement of this type and the basic general principles expressed therein. It is recognized that the present agreement is merely a start and that future revisions and modifications should be made from time to time. It is particularly our desire that the form of the agreement be recast so as to develop more explicitly the duties and responsibilities of attorneys and to make the agreement more clearly bi-lateral, rather than unilateral. However, in order not to delay the earliest possible adoption of this first effort, we have limited our recommendations for present change to a minimum.

STANDARDS OF PRACTICE GOVERNING LAWYERS AND PHYSICIANS

PREAMBLE

Realizing that a substantial part of the practice of law and medicine is concerned with the problems of persons who are in need of the combined services of a lawyer, physician and hospital; and that the public interest and individual problems in these circumstances are best served by the cooperative efforts of all concerned; we, the members of the Iowa State Bar Association and the Iowa State Medical Society, do adopt and recommend the following declaration of principles as standards of proper conduct for lawyers, physicians and others concerned, subject always to rules of law and standards of legal and medical ethics prescribed for their individual conduct.

A. With Respect to Reports to Be Furnished.

1. Where a report is requested by the patient's attorney, supported by proper written authorization from the patient, and where the report is to be based on information which the physician can obtain from his own office records, he should furnish a report with or without reasonable charge at the discretion of the parties involved. And similarly, where the requested report would require an additional examination of the patient, or would require that the physician check hospital records, a charge should be made in an amount to be agreed upon between the physician and the patient.

2. Where the report is requested by someone other than the plaintiff, or the plaintiff's attorney, the physician should insist upon proper authorization from the patient before giving the information or the report, and his charge for such report should be in an amount to be agreed upon between him and the person seeking that report.

3. When a report is requested, the lawyer should make clear in his written request for a report the specific condition about which he seeks information, and should likewise indicate whether or not he is asking for a prognosis. The physician, upon receipt of such request, should answer such request and furnish such report promptly.

B. With Respect to Physicians Being Called to Testify or to Render Depositions as Witnesses.

1. The relation between a lawyer and a physician should be based upon mutual courtesy and understanding. A physician should understand that medical testimony is frequently indispensable to prove or disprove the nature and extent of injuries. Therefore, where he undertakes to treat a person who has been injured, he has an incidental responsibility to cooperate with the patient and his attorney if litigation ensues for recovery of damages for the injuries so sustained.

2. It is understood that the fee charged by the physician for his medical services does not take into account any further time or effort on his part in the event of such litigation, and therefore these standards recognize that it is right and proper that the physician should be further compensated for any additional time or effort expended by him in such litigation.

3. A physician should attend court at the time appointed. The lawyer should appreciate, however, that a physician has continuing and often unpredictable responsibilities to his patients. In so far as he is able, the lawyer should make arrangements to permit the physician to testify with a minimum of inconvenience and delay to him.

4. It is recognized that in most instances it is proper that a conference should be held between the physician and lawyer proposing to call him as a witness, at some mutually convenient time before he is to testify.

5. No physician should be subpoenaed as a witness to testify in any case without prior conference with the lawyer calling him, concerning the matters as to which he is to be interrogated, unless the physician and the lawyer agree that such conference is unnecessary.

6. It is recognized that whether a consultation fee is to be charged to the patient for such conference, and if so, the amount of such fee, should in all cases, depend upon the circumstances pertaining to each case, including the physician's time required in such conference, the extent of his previous services for the patient, and the ability of the patient to pay for such services. Therefore, the amount of the fee, if any, should be a matter of agreement between the physician, lawyer and patient.

7. It is recognized that, although every reasonable effort should be made to minimize the inconvenience to the physician witness, the dispatch of the duties of the courts cannot be governed by the convenience of litigants, lawyers or witnesses, whoever they may be.

8. In so far as it is in their power to do so, however, lawyers should make such advance arrangements for the attendance of physicians as witnesses, as will have due regard for the professional demands upon the physician's time, including preparation of medical evidence. Such advance arrangements contemplate some reasonable notice to the physician of the intention to call him as a witness, prior to the issuance of the subpoena, and calling him by phone after the trial has commenced and advising him of the approximate time when he will be called to testify.

9. When a physician is called to testify as a witness for his patient, the charge, if any, to be made to such patient, shall be the equivalent of what the charge would be to such patient for the same amount of time and skill for professional service.

10. When a physician is called to testify as an expert witness, he shall be paid such fee as is agreed upon with the lawyer representing the party calling him.

11. No arrangement shall be made whereby the amount of the physician's charge for his time as a witness shall be determined by the amount of the recovery by the patient in the litigation. Nothing herein is intended to alter the rules of law with reference to attendance of witnesses and fees for their attendance, nor the law with reference to privileged communication.

C. With Respect to Physician's Fees and Services.

1. It is fully understood that under no circumstances should the physician's charges, or his fees as a witness, be contingent upon the success of the patient's litigation.

2. When the physician has not been fully paid by the patient, either for his regular professional services or for his time as a witness or both, the lawyer shall

request permission of the patient to pay the physician for such services, out of any recovery of money which the lawyer may receive on behalf of such patient.

Paul Brecher, M.D., *Chairman*
Eugene Van Epps, M.D., *Secretary*
A. F. Fritchen, M.D.
C. O. Adams, M.D.
T. L. Ward, M.D.
B. F. Howar, M.D.
S. Dale Porter, M.D.
J. H. Sunderbruch, M.D.
S. W. Corbin, M.D.
H. J. Peggs, M.D.
C. H. Flynn, M.D.

The House of Delegates approved Des Moines as its convention site in 1958.

The House extended its thanks to Blue Cross-Blue Shield for the lounge provided during this annual meeting and expressed its appreciation to Blue Shield for the services of Messrs. Douglas Majury, Morris Bandy and Kenneth Clark as sergeants-at-arms.

The House approved a motion that a letter of appreciation be sent to each company that exhibited during this annual meeting.

Dr. Herman Smith was given a verbal commendation and a standing ovation for the manner in which he conducted the sessions of the House of Delegates.

The meeting was adjourned by the Speaker at 9:25 A.M.

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IOWA STATE MEDICAL SOCIETY

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Vice President.....William M. Sproul, Des Moines
Secretary.....Richard F. Birge, Des Moines
Treasurer.....N. Boyd Anderson, Des Moines
Speaker of the House of Delegates,
Herman J. Smith, Des Moines*
Vice Speaker of the House of Delegates,
Stuart C. Cullen, Iowa City

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	Term Expires
First District, Arthur F. Fritchen, Decorah	1958
Second District, Jay E. Houlahan, Mason City	1959
Third District, Thomas L. Ward, Arnolds Park	1957
Fourth District, Paul W. Brecher, Storm Lake	1958
Fifth District, Bruce F. Howar, Webster City	1957
Sixth District, S. Dale Porter, Grinnell	1958
Seventh District, Eugene F. Van Epps, Iowa City	1959*
Eighth District, John H. Sunderbruch, Davenport	1957
Ninth District, S. Weston Corbin, Corydon	1959*
Tenth District, Harold J. Peggs, Creston	1957
Eleventh District, Charles H. Flynn, Clarinda	1958

TRUSTEES

George H. Scanlon, Iowa City, Chairman	1957
Ernest M. Kersten, Fort Dodge	1958
Walter D. Abbott, Des Moines	1959

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	Term Expires
Donovan F. Ward, Dubuque	January 1, 1958
Robert N. Larimer, Sioux City	January 1, 1959*
Francis C. Coleman, Des Moines	January 1, 1959*

ALTERNATE DELEGATES TO AMA

	Term Expires
Frank G. Ober, Burliington	January 1, 1958
Callistus H. Stark, Cedar Rapids	January 1, 1959*
Henning W. Mathiasen, Council Bluffs	January 1, 1959

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Fred Sternagel	West Des Moines
William M. Sproul	Des Moines
Richard F. Birge	Des Moines
N. Boyd Anderson	Des Moines
Herman J. Smith	Des Moines
Arthur F. Fritchen	Decorah
Jay E. Houlahan	Mason City
Thomas L. Ward	Arnolds Park
Paul W. Brecher	Storm Lake
Bruce F. Howar	Webster City
S. Dale Porter	Grinnell
Eugene F. Van Epps	Iowa City
John H. Sunderbruch	Davenport
S. Weston Corbin	Corydon
Harold J. Peggs	Creston
Charles H. Flynn	Clarinda
Donovan F. Ward	Dubuque
Robert N. Larimer	Sioux City
Francis C. Coleman	Des Moines
Herman J. Smith	Des Moines

*Re-elected at 1956 annual meeting

THE JOURNAL

Everett M. George ..... Des Moines

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Noble Irving ..... Des Moines
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J. C. Nolan ..... Corning (1957)
V. C. Robinson ..... Des Moines (1959)

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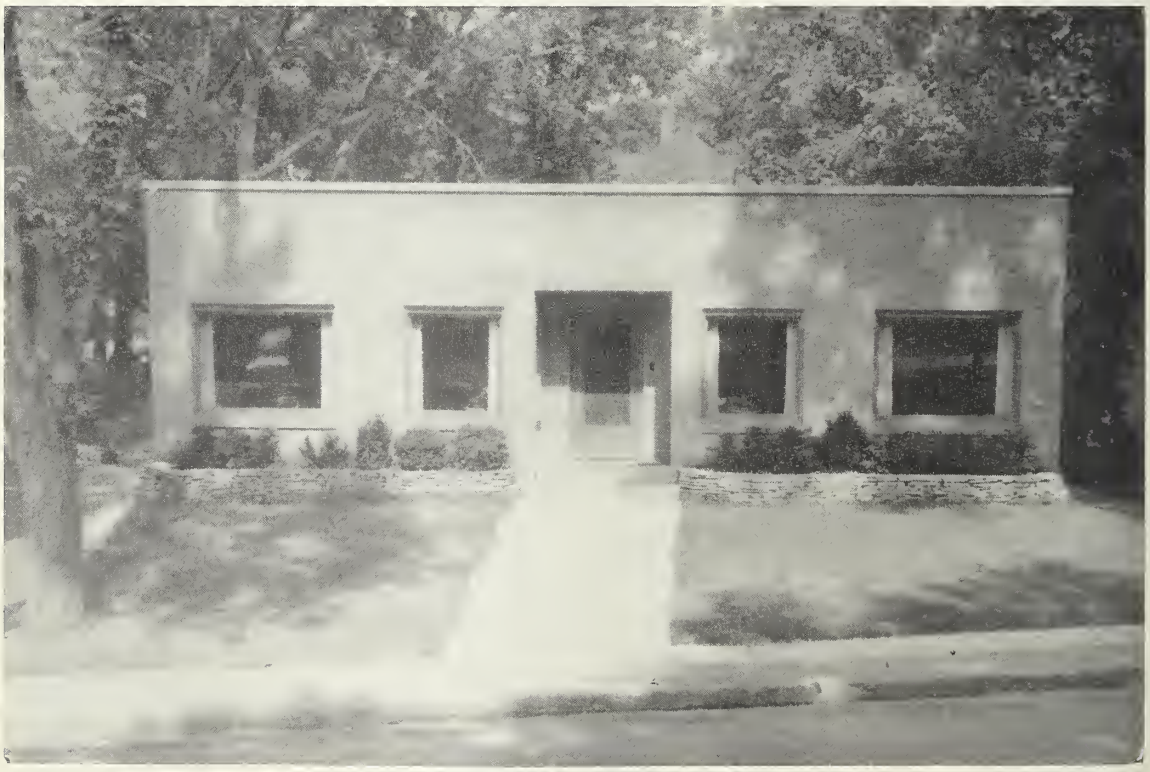
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Paul Cash ..... Des Moines
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Iowa State Medical Society Headquarters Building

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of the

IOWA STATE MEDICAL SOCIETY

1956

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as of

June 15, 1956

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Abbott, Albert R., Ames
Abbott, Walter D., Des Moines
Acher, Albert E., Fort Dodge (L.M.)
Acker, Richard D., Waterloo
Acker, Wesley H., Waterloo
Ackerman, Emma M., Sioux City (A.M.)
★Ackerman, John H., Jacksonville, Florida
Adams, Carroll O., Mason City
*Adams, Ernest M., Central City (L.M.)
Adams, Leon P., Newton
Adams, Lyle E., Wausau, Wisconsin
Addison, Cornelius P., Waterloo
Ady, Albert E., West Liberty
Aeilts, Eerko S., Sibley (L.M.)
*Agnew, Fred F., Independence (L.M.)
Agnew, James W., Davenport
Ahmann, Edward J., Walcott
Ahrens, John H., Oelwein
Aid, Francis H., Burlington
Alberti, Robert L., Oskaloosa
Alberts, Marion E., Des Moines
Albright, George C., Iowa City
Alcorn, Harry W., Mason City
Alden, Oscar, Red Oak
Allen, Herbert B., Newton
Allen, Hoyt H., Fort Dodge
Allen, Marion B., Fort Dodge
Allender, Robert B., Des Moines
Allison, Monroe P., Northwood
Alt, Louis P., Dubuque
Alyea, James O., Nevada
Ambery, Sebastian, Keokuk
Amesbury, Harry A., Clinton
Amick, Louis B., Sac City
Amick, Perry P., Des Moines
Amlie, Paul J., Blairstown
Andersen, Bruce V., Greene
Andersen, Holger M., Strawberry Point
Andersen, Kenneth N., Center Point
Anderson, DeWayne C., Stanhope
Anderson, Edward E., Davenport
Anderson, Evelyn M., Des Moines
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Anderson, J. Donald, Des Moines
Anderson, John R., Long Beach, California
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Anderson, Walter D., Des Moines
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Anneberg, Paul D., Carroll
Anneberg, Walter A., Carroll
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Anspach, Royal G., Colfax
Anspach, Royal S., Mitchellville
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Arent, Asa S., Humboldt
Arkin, Archie A., Des Moines
Armitage, George I., Osceola
Armstrong, Frederick C., Cascade
Armstrong, Max A., Newell
Arnold, Dorothy J., Iowa City
Arnold, Keith E., Sioux City
Arp, Louis C., Iowa City
Aschoff, Carl R., Cedar Rapids
Ash, Wallace H., DeWitt
Ash, William E., Council Bluffs
Ashline, George H., Keokuk
Asthalter, Robert W., Muscatine
Atkinson, George S., Oskaloosa
Augspurger, Byron B., Des Moines
Augspurger, Roger L., Sigourney
Ayers, Emmet V., Charles City
Ayers, LeRoy J., Sioux City

Babcock, Oliver L., Albert City
Bacon, John F., Ames
Baier, August, Knoxville
Bailey, Jesse L., Des Moines
Bailey, Robert O., Waterloo
Bain, C. Lorimer, Corning
Baird, William A., Ames
Bairnson, George A., Cedar Falls
Baker, Charles J., Fort Dodge
Baker, John N., Cedar Falls
Bakody, John T., Des Moines
Baldwin, Leon A., Riverton (L.M.)
Balkema, Walter S., Sheldon
Baltzell, Winston C., Charles City
Balzer, Walter J., Davenport
Banks, Keith D., Knoxville
Banton, Oscar H., Charles City
Barbieri, Angelo B., Garwin
Barbour, Howard W., Mason City (L.M.)
*Barbour, William J., Shell Rock
Barg, Egmont H., Mason City
Barnes, Bernard C., Des Moines
Barnes, Milford E., Iowa City (L.M.)
Barnett, Sylvester W., Cedar Falls
Barr, Guy E., Sioux City (L.M.)
Barrent, Milton E., Clinton
*Barrett, James W., Jr., Independence
Barrett, Sterling A., Waterloo
Bartels, Edward R., Dubuque
Barthel, John P., Cedar Rapids
Bartlett, George E., New Sharon
Bartley, Richard L., Audubon
Barton, Edwin G., Ottumwa (L.M.)
Barton, Robert L., Dubuque
Bartruff, Charles H., Reinbeck
Bascom, Lewis A., Nora Springs
Basinger, Byron L., Goldfield
Bastron, Harold C., Red Oak
★Bateman, Rolland D., Jr., Iowa City
Bates, Ernest G., Aurelia
Bates, Maurice T., Des Moines
Baumann, James G., Charles City
Bausch, Richard G., Cedar Rapids
Bay, Frank N., Albia
Beal, Arline M., Davenport
Bean, Elmer O., Council Bluffs
Bean, William B., Iowa City
Beardsley, David E., Cedar Rapids (L.M.)
Beardsley, Ralph W., Livermore
Beatty, Alexander S., Creston (L.M.)
Beatty, Howard G., Creston
Beaumont, Fred H., Council Bluffs
Becker, Eugene B., New Hampton
Beckman, Charles W., Kalona
Beckman, Peter W., Perry (L.M.)
Beddoes, Morris G., Waterloo
Bedell, George N., Iowa City
Beebe, John R., Mount Pleasant
Beebe, Kenneth P., Mount Pleasant
Beeh, Edward F., Fort Dodge
Bees, Louis E., Bennett
Begley, Bernard J., Iowa City
Behrens, George F., Davenport
Beitenman, Edward T., Guthrie Center
Bell, Edward P., Pleasantville (L.M.)
Bell, Robert S., Burlington
Bender, Henry A., Waterloo
Bendixen, Frederick C., Le Mars
Benfer, Merrill M., Davenport
Benge, Donald K., Hampton
Bennett, Geoffrey F., Oskaloosa
Benton, Jay S., Williamsburg
Beran, Joseph J., Waterloo
Berg, John W., Ames
Berge, Richard F., Aurelia
Bergen, Charles T., Northwood
Berger, Raymond A., Davenport
★Berggreen, Raymond G., Memphis, Tennessee
Bergstrom, Albin C., Missouri Valley
Berkstresser, Charles F., Sioux City
Bernard, Ransom D., Ames
★Berndt, Allen E., Montgomery, Alabama
Berney, Paul W., Cedar Rapids
Berry, A. Erwin, Newton
Bessmer, William G., Davenport
Best, Gordon N., Council Bluffs
Bettler, Philip L., Sioux City
Beye, Cyrus L., Sioux City
Bezman, Harry S., Traer
Bickert, J. Norman, Cedar Rapids
Bickley, Donald W., Waterloo
Bickley, John W., Waterloo
Bierman, Martyn H., Jr., Council Bluffs
Bierring, Walter L., Des Moines (L.M.)
Biersborn, Byron M., State Center
Bigelow, Charles T., La Grange, Illinois (L.M.)
Billingsley, John W., Newton
Binford, William S., Davenport (L.M.)
Bird, Raymond G., Clarion
Birge, Richard F., Des Moines
Birney, Cleanthus E., Estherville (L.M.)
Bisgard, Carl V., Harlan
Bishop, James F., Davenport
Black, Harold C., Des Moines
Blackstone, Martin A., Sioux City
Blaha, George A., Whitten
★Blaha, Vernon B., Marshalltown
Blair, Donald W., Des Moines
Blair, James B., Cherokee
Blanchard, Russell W., Waterloo
Blenderman, Albert D., Jr., Overland Park, Kansas
Bliss, William R., Ames
Block, Charles E., Davenport
Block, Lawrence A., Davenport
Block, Walter M., Cedar Rapids
Blodi, Frederick C., Iowa City
Blome, Arthur L., Ottumwa
Blome, Glenn C., Ottumwa
Blong, Theodore E., Stacyville
Bluhm, Samuel, Muscatine
Blum, Aloysius A., Wall Lake
Blume, Donald B., Sioux City
Blumgren, John E., Vinton
Board, Thomas P., Waterloo
Bock, Don C., Fort Dodge
Bock, Lewis L., Des Moines
Bockoven, William A., Iowa City
Boden, Worthey C., Sioux City
Boe, Henry, Sioux City
Boice, Clyde A., Washington (L.M.)
Boiler, William F., Iowa City
Boller, Galen C., Waterloo
Bond, Thomas A., Des Moines
Bone, Harold C., Des Moines
Bonfigilio, Michael, Iowa City
Borgen, Donald L., Gowrie
Borre, Helge, Hubbard
Borts, Irving H., Iowa City
Bos, Howard C., Oskaloosa
*Bosch, Calvin C. F., Sibley
Bossingham, Earl N., Clarinda
Boston, Burr C., Waterloo
Boughn, J. Kent, Crestwood, Missouri
Boulden, Roger W., Lenox
Boulware, Lois, Iowa City
Bourne, Melvin G., Algona
Bovenmyer, DeVoe O., Ottumwa
Bowers, Arthur S., Orient (L.M.)
Bowers, Clifford V., Sioux City
*Bowers, Henry W., Nevada
Bowie, Louis L., Marshalltown (L.M.)
Boyer, Howard C., Council Bluffs (L.M.)
Boysen, James F., Sioux City
Bozek, Thaddeus T., Iowa City
Bradford, Clyde R., Des Moines
Bradley, Carl L., Newhall
Braley, Alson E., Iowa City
Braunlich, George, Davenport
Bray, Daniel L., Algona
Brecher, Paul W., Storm Lake
Bremner, Robert N., Steamboat Rock
Brendel, Alfred, Central City
Brereton, Harold L., Emmetsburg
Bridge, Barton C., Jefferson
Bridgeman, Harry L., Knoxville (L.M.)
Bries, Frank J., North Buena Vista
Brindley, Robert W., Des Moines
Brinegar, Willard C., Cherokee
Brink, Raymond J., Ayrshire
Brinkman, William F., Pocahontas
Brintnall, Edgar S., Iowa City
Bristow, George B., Osceola
Brobyn, Thomas E., Grinnell
Broderick, Clarence E., Cherokee
Brody, Sidney, Ottumwa
Broers, Merlin U., Schleswig
Broman, John, Maquoketa
Brown, Addison W., Des Moines
Brown, Arthur C., Council Bluffs
Brown, Bernice E., Anamosa
Brown, Carroll A., Sioux City
Brown, Douglas H., Forest City
Brown, Eugene F., Webster City
Brown, Gerald F., Anamosa
Brown, Ivan E., Hartley
Brown, Kenneth R., Leon
Brown, Marjorie F., Iowa City
Brown, Merle J., Davenport
Brown, Paul F., Maquoketa
Brown, Robert C., Mason City
Brown, Wayne B., Mount Pleasant
Brownstone, Manuel, Clear Lake
Brownstone, Sidney, Clear Lake
Brubaker, Carl F., Corydon
Bruce, James H., Fort Dodge (L.M.)
Bruecken, Albert J., Des Moines
Brummitt, Charles F., Centerville
Bruner, Julian M., Des Moines
Brunk, Amos W., Prescott
Brush, C. Herbert, Shenandoah
Brush, Frederick C., Mason City
Buchanan, John J., Milford
Buchman, Elwood, Philadelphia, Penn.
Buckles, Robert D., Waterloo
Buckwalter, Joseph A., Iowa City
Bullock, Alfred L., Cushing
Bullock, Grant D., Inwood
Bullock, William E., Lake Park (L.M.)
Bumgarner, James E., Des Moines

Bunge, Raymond G., Iowa City
Bunting, Richard A., Omaha
Burbank, Dean S., Pleasantville
Burch, Earl S., Dayton
Burcham, Thomas A., Sr., Des Moines (L.M.)
Burcham, Thomas A., Jr., Des Moines
Buresh, Abner, Lime Springs
Burgeson, Floyd M., Des Moines
Burgess, Arthur W., Iowa Falls
Burian, Hermann M., Iowa City
Burke, Edmund T., Des Moines
Burke, Robert W., Iowa City
Burke, Thomas A., Mason City
Burns, Harry, Des Moines
Burns, Robert I., Des Moines
Burnside, Raymond A., Des Moines
Burr, Charles L., Des Moines
Burroughs, Charles R., Knoxville
Burroughs, Hubert H., Sioux City
Bushmer, Alexander, Orange City
Bushnell, John W., Sioux City
Buxton, Otho C., Jr., Webster City
Byram, Burns M., Marengo
Byrne, John P., Anamosa
Byrnes, Clemmet W., Dunlap
Byrum, Robert J., Davenport

Cahn, Philipp, Oakdale
Calbreath, Lloyd B., Humeston
Callaghan, Ambrose J., Jr., Sioux City
Callahan, George D., Iowa City
Camel, Louise M., Council Bluffs
Camp, John R., Britt
Campbell, Donald K., Oskaloosa
Campbell, James B., Rockwell
Campbell, Nathan, Yarmouth
Campbell, Thomas R., Sioux Rapids
Campbell, Walter V., Oskaloosa
Canady, George F., Jefferson
Cantwell, John D., Davenport (L.M.)
Carey, Edward T., Jr., Clinton
Carey, Michael J., Council Bluffs
Carlile, Amos W., Manning (L.M.)
Carlson, Elmer H., Muscatine
Carlson, Frank G., Mason City (L.M.)
Carney, Robert G., Iowa City
Carney, Roscoe P., Jr., Davenport
Carpenter, Fred E., Newton
Carpenter, Ralph C., Marshalltown
Carr, Leslie L., West Union
Carrigg, Lawrence G., Cedar Rapids
Carroll, Thomas J., Sibley
Carryer, Carl H., Des Moines (L.M.)
Carson, Andros, Des Moines (L.M.)
Carson, Raymond W., Winterset
Carstensen, Albert B., Linn Grove
Carstensen, Vincent H., Waverly
Carter, James G., Mason City
Carter, John R., Iowa City
Carver, David C., Rockwell City
Cary, Walter, Sepulveda, Calif. (A.M.)
Cash, Paul T., Des Moines
Castell, John W., Fairfield
Castles, William A., Dallas Center
Catalona, William E., Muscatine
Catlin, Karl A., Clarinda
Catterson, Leroy F., Oskaloosa
Caudill, George Gray, Des Moines
Caughlan, Gerald V., Council Bluffs
Cauley, Francis P., Anthon
Caulfield, John D., New Hampton
Chain, Leo W., Dedham
Chambers, Charles L., Ellsworth, Maine (L.M.)
Chambers, James W., Des Moines
Chapin, Josephine M., Iowa City
Chapler, Keith M., Dexter
Chapman, Robert M., Cedar Rapids
Chase, Sumner B., Fort Dodge
Chase, Walter E., Rippey
Chase, William B., Des Moines (L.M.)
Chase, William B., Jr., Des Moines
Chen, Hammond P., Iowa City
Cherwitz, Gordon, Davenport
Chesnut, Paul F., Winterset
Chester, Walter S., Albia (A.M.)
Childs, Hal A., Creston (L.M.)
Chittum, John H., Wapello (L.M.)
Christensen, Eunice M., Spencer
Christensen, Everett D., Spencer
Christensen, Floyd D., Remsen
Christensen, John R., Eagle Grove (A.M.)
Christiansen, Charles C., Grand Mound
Christiansen, James, Sioux City
Christiansen, John E., Durant
Christopherson, Joseph E., Mason City
Claman, Maurice A., Des Moines
Clappison, Gordon B., Iowa City
Clapsaddle, Dean W., Clear Lake
Clapsaddle, John G., Burt
Clark, Clayton W., Nashua
Clark, Donald R., Waterloo
Clark, George H., Oskaloosa
Clark, James P., Estherville
Clark, Orson W., Ogden
Clark, Richardson E., Manchester
Clark, Thomas D., Knoxville
Clary, William M., Prescott (L.M.)
Clasen, Henry W., Littleton, Colorado (L.M.)
Clemens, Albert L., Des Moines
Clifton, James A., Iowa City
Closson, Charles L., Walker
★Cloud, Arthur B., San Antonio, Texas
Cmeyla, Patrick M., Sioux City
Cobb, Elliott A., Cedar Rapids
Cochran, J. Lawrence, Carroll
Cochrane, Allen M., Perry
Coddington, James H., Humboldt
Cody, William E., Sioux City
Coffey, James L., Emmetsburg
Coffin, Lonnie A., Farmington
Coffin, Velma Elizabeth, Iowa City
Coffman, Eugene W., Dubuque
Cogley, John P., Council Bluffs
Cohen, Sidney A., Council Bluffs
Colbert, Lawrence D., Royal
Colbert, Marvin J., Belmond
Cole, Elmer J., Woodbine (L.M.)
Cole, Fern N., Iowa Falls
Cole, Harold P., Thurman
Cole, Julia, Ames
Coleman, Francis C., Des Moines
Collignon, Urban J., Council Bluffs
Collins, Alice J., Des Moines
Collins, Loren E., Sioux City
Collins, Robert M., Council Bluffs
Collison, Robert M., Oskaloosa
Comly, Hunter H., Iowa City
Conklin, Eugene V., Dubuque
Conkling, Russell W., Newton
Conley, Rollin M., Perry
★Conoan, Eduardo A., San Diego, Calif.
Conlon, James B., Council Bluffs
Conmey, Roy M., Sergeant Bluffs (L.M.)
Connell, John, Des Moines
Connelly, Edgar J., Dubuque
Conner, John D., Nevada
Conner, William E., Iowa City
Conzett, Donald C., Dubuque
Cook, Kenneth G., Fairfield
Cook, R. Sanford, Iowa City
Cook, Stuart H., Rock Rapids
Cooper, Clark N., Waterloo
Cooper, Dean C., Fort Dodge
Cooper, Gladys A., Red Oak
Cooper, Jay C., Villisca (L.M.)
Cooper, Raymond E., Keokuk
Cooper, Wayne K., Cedar Rapids
Coppoc, Loran E., Ottumwa
Corbin, Sylvannus, Corydon
Corcoran, Thomas E., Des Moines
Cords, Charles H., Rudd
Coriden, Thomas L., Sioux City
Corn, Henry H., Des Moines
Cornish, James A., Storm Lake
Corton, Richard V. M., Waterloo
Couchman, Mary P., Mount Pleasant
Couchman, Phillip C., Mount Pleasant
Coughlan, Charles H., Fort Dodge
Coughlan, Daniel W., Des Moines
Coulson, Forest H., Burlington
Cox, Russell L., Estherville
Crabb, Dayrle N., Denison
Crain, Lewis F., Deep River (L.M.)
Crain, Mattie M., Deep River (L.M.)
Crandall, Jack S., Marshalltown
Crawford, Robert H., Burlington
Crawford, W. McCulloch, Burlington
Cressler, Frank E., Churdan
Cretzmeyer, Charles H., Algona (L.M.)
Cretzmeyer, Francis X., Emmetsburg
Crew, Arthur E., Marion (L.M.)
Crew, Philip I., Cedar Rapids
Croker, Mary Ann, Manchester
Cross, Donald L., Boone
Cross, Kenneth R., Iowa City
Crossley, J. Wesley, Mason City
Crow, George B., Burlington
Crowe, Denvil F., Nashville, Tenn.
Crowley, Daniel F., Des Moines (L.M.)
Crowley, Daniel F., Jr., Des Moines
Crowley, Paul J., Davenport
Croxdale, Edward L., Villisca
Crumpton, Robert C., Webster City (A.M.)
Culbertson, James W., Iowa City
Culbertson, Robert A., Des Moines
Cullen, Stuart C., Iowa City
Culp, David A., Iowa City
Cunnick, Paul C., Davenport
Cunningham, Glenn D., Davenport
Cunningham, Melvin B., Norwalk
Curtis, Dean, Chariton
Cusick, George W., Davenport

Dahl, Harry W., Des Moines
Dahlbo, John F., Sutherland
Dahlquist, Ralph M., Decorah
Dalager, Robert D., Ottumwa
Dalbey, Glenn Merle, Traer
Danielson, May, Clinton
Dannenbring, Forrest G., Fort Dodge
Darrow, Clarence A., Dubuque
Daut, Richard V., Davenport
Daut, Walter Wm., Muscatine
Davey, William P., Sioux City
Davidson, Thorald E., Mason City
Davis, Arthur E., Seymour
Dawson, Emerson B., Fort Dodge
Dawson, Leon F., Des Moines
Day, Philip M., Oskaloosa
★Day, Richard T., New York, N. Y.
Deakins, Martin L., Logan
Dean, Abbott M., Council Bluffs
*Dean, Ray H., Washington (L.M.)
Dean, William F., Osceola (L.M.)
Deaton, Helen J., Iowa City
Decker, Charles E., Davenport
Decker, Henry G., Des Moines
Decker, Jay C., Sioux City (L.M.)
DeGowin, Elmer L., Iowa City
Demaree, Chester, Lacona (L.M.)
DeMeulenaere, John C., Grinnell
Dempewolf, Robert D., Bellevue
Dennert, Walter G., Des Moines
Deranleau, Robert F., Perry
DeShaw, Earl H., Monticello
Des Marias, Varina, Grundy Center
★Devine, James S., San Diego, Calif.
Dewees, Frank L., Keokuk
Dewey, Jay R., Schaller
DeYoung, Ward A., Glenwood
Diamond, Bernard V., Waterloo
Dick, Fred Jr., Waterloo
Dickens, James H., Des Moines
Dierker, LeRoy J., Fort Madison
Dimsdale, Lewis J., Sioux City
Dingman, Marshall E., Urbana (L.M.)
Ditto, Boyd L., Burlington
Ditto, Winston B., Burlington
Doane, Grace O., Des Moines
Dodge, Lynn Q., Ames
Doering, Valentine T., Fort Madison (A.M.)
Dohnalek, Donald W., Waukon
Dolan, Albert M., Waterloo
Dolan, Henry F., Anamosa
Dolan, Thomas R., Monticello
Dolmage, George F., Buffalo Center
Donahue, James C., Centerville
Donohue, Edmund S., Sioux City
Donlin, Robert E., Harlan
Donnelly, Madelene M., Des Moines
Doolittle, Russell C., Waynesville, North Carolina (L.M.)
Doran, John R., Ames
Dorner, Ralph A., Des Moines
Dorsey, Thomas J., Fort Dodge
Doss, W. Gordon, Cresco
Doss, Wm. Norman, Leon
Down, Howard I., Sioux City
Downing, Arthur H., Des Moines
Downing, James A., Des Moines
Downing, John S., Cedar Rapids
Downing, Leroy M., Cedar Rapids (L.M.)
Downing, Wendell L., Le Mars
Downey, Eugene M., Guttenberg
Downs, Vernon S., Ottumwa
Doyle, Joseph L., Sigourney
Dressler, John B., Ida Grove
Drew, Edward J., Des Moines
Drier, William C., Waterloo
Driver, Richard W., Waterloo
Drown, Roger E., Fort Dodge
Dubansky, Marvin H., Des Moines
Duewall, Rudolph H., West Des Moines
Dulin, Evelyn H., Iowa City
Dulin, John W., Iowa City
Dulin, Tarana J. G., Iowa City (L.M.)
Duling, Raymond J., Sioux City
Dulmes, Abraham H., Klemme
Dunham, Henry H., Waterloo
Dunlevy, James H., Fairfield
Dunn, Dale E., Estherville
Dunn, Francis C., Cedar Rapids
Dunn, James, Davenport (L.M.)
Dunn, Robert C., Fort Dodge
Dunner, Ada, Des Moines
Dusdieker, Stanley W., Des Moines
Dutton, Dean A., Van Horne

Dvorak, Joseph E., Sioux City
Dwyer, Bernard B., Clinton
Dwyer, Robert E., Clinton
Dyson, James E., Des Moines
Dyson, Ralph E., Des Moines

Eastburn, Harvey B., Burlington
Eaton, Robert C., Clarion
Ebinger, Edward W., Ottumwa
Echternacht, Arthur P., Fort Dodge
Eckart, Emile P., Fort Dodge
★Eckberg, Richard A., Laredo, Texas
Eckhardt, Richard D., Iowa City
Eckstein, John W., Iowa City
Edelman, David L., Des Moines
Edgerton, Winfield D., Davenport
Edington, Frank D., Spencer
Edwards, Charles C., Rochester
Edwards, Charles V., Council Bluffs
Edwards, John F., Clinton
Edwards, Ralph R., Centerville
Egan, Thomas J., Bancroft
Egbert, Daniel S., Fort Dodge
Egermayer, George W., Elliott (L.M.)
Eggleston, Alfred A., Burlington
Egloff, William C., Mason City
Ehmke, Bruce C., Iowa City
Ehrenhaft, Johann L., Iowa City
Eicher, Charles R., Iowa City
Eiel, John O., Osage
Eiel, Merrill O., Osage
Eikleberry, Lois S., West Branch
Eisenach, John R., Shenandoah
Ekart, Paul I., Ottumwa
Elkins, Higdon B., Iowa City
Eller, Lancelot W., Kanawha
Eller, William C., Waterloo
Elliott, Olin A., Des Moines
Ellis, Howard G., Des Moines
Ellis, Philip P., Iowa City
Ellison, George M., Clinton
Ellsworth, H. Charles, Cherokee
Ellyson, Charles W., Waterloo (L.M.)
Ellyson, Craig D., Waterloo
Ely, Lawrence O., Des Moines
Emanuel, Dennis G., Ottumwa
Emerson, Edward L., Muscatine
Emmons, Marcus B., Clinton
Emmons, Margaret S., Clinton
Emmons, Richard O., Clinton
Eneboe, Edward M., Hawarden
Engelmann, Andrew T., Sioux City
Enggas, John T., Britt
Englund, Philip M., Fort Dodge
Enna, Melchior D., Dumont
Ennis, Harry H., Manchester
Ensley, Bruce, Shell Rock (L.M.)
Entringer, Albert J., Dubuque
Entz, F. Harold, Waterloo
Erickson, Ernest D., Sioux City
Ericsson, Martin G., Cedar Falls
Erikson, Ronald E., Davenport
Esders, Martin S., De Witt
Estes, Maurice, Cedar Rapids
Evans, John E., Winterset
Evans, John G., New Hartford (L.M.)
Evans, William I., Sac City
Evers, Alvin E., Pella
Evers, Gerald H., Fort Madison

Faber, Luke A., Dubuque
Fail, Charles S., Adel
Fallows, Howard D., Mason City (L.M.)
Farago, Denes S., Lake City
Farlow, Charles T., Farnhamville (L.M.)
Farnsworth, Harold E., Storm Lake
Farrage, Edward R., Council Bluffs
★Farrior, Richard T., Detroit, Michigan
Faust, John H., Manson
Fee, Charles H., Denison
Fee, Knight E., Toledo
Feightner, Robert L., Fort Madison
Feldick, Harley G., Waterloo
Fellows, Joseph G., Ames
Felter, Allan G., Van Meter
Fenton, Charles D., Bloomfield
Fenton, Robert L., Centerville
Ferguson, John W., Newton
Ferguson, Paul, Lake City
Ferlic, Rudolph J., Carroll
Fesenmeyer, Charles R., Davenport
Fickel, Jack D., Red Oak
Field, Charles A., Cresco
Field, Grace E. W., Juneau, Alaska
*Fields, Robert B., La Porte City (L.M.)
Fieseler, Walter R., Fort Dodge
Fieselmann, George F., Spencer
Files, Edward H., Cedar Rapids
Fillenwarth, Floyd H., Charles City
Finch, George H., Des Moines
Findlater, A. J. M., Olin
Fisch, Roman J., Le Mars
Fisher, June M., Iowa City
Fisher, William A., Creston
Fishman, Harlow J., Cherokee
Fisk, Charlotte, Des Moines
Fitch, Robert E., Des Moines
Fitzgerald, Joseph D., Sloan
Flannery, Francis E., Cedar Rapids
Flater, Norman C., Floyd
Fleming, Edward F., Rockwell
Flickinger, Roger R., Mason City
Flocks, Rubin H., Iowa City
Floersch, Eugene B., Council Bluffs
Floyd, Mark L., Iowa City
Flynn, Charles H., Clarinda
Flynn, Gordon A., Davenport
Flynn, James R., Jr., Cedar Rapids
Foley, Robert J., Davenport
Foley, Walter E., Davenport
Foley, Walter E., Jr., Davenport
Fomon, Samuel J., Iowa City
Ford, James C., Boone
Fordyce, Frank W., Des Moines
Forsythe, Dorothy C., Newton
Forsythe, Frank E., Newton
Foss, John F., Burlington
Foss, Robert H., Iowa City
Foster, Morgan J., Cedar Rapids
Foster, Samuel T., Adel (L.M.)
Foster, Wayne J., Cedar Rapids
Foster, W. John, Cedar Rapids
Foster, Warren H., Clinton
Foulk, Frank E., Backus, Mninesota (L.M.)
Fowler, Willis M., Iowa City
Fox, Charles I., Pella (L.M.)
Fox, Ray A., Charles City
Fox, Stephan, Ottumwa
Franchere, Chetwynd M., Mason City
Franey, William E., Cedar Rapids
Frank, Louis J., Sioux City
Frank, Owen L., Maquoketa
Fraser, James B., Des Moines
Fraser, John H., Monticello
Frazier, Robert G., Iowa City
Frech, Raymond F., Newton
Frederickson, Adolph R., Lansing
Freed, David A., West Union
French, Royal F., Marshalltown
French, Valiant D., Cedar Falls
French, Vera V., Davenport
Frenkel, Hans S., Clarinda
Friday, Walter C., Burlington
Fridell, Glen W., Slater
Frink, Lyle F., Spencer
Frink, Lynn E., Rainbeck
Fritchen, Arthur F., Decorah
*Fritz, Lafe H., Dubuque (L.M.)
From, Paul, Des Moines
Frost, Loraine H., Iowa City
Fry, Gerald A., Vinton
Fuerste, Frederick Jr., Dubuque
Fuller, Lyle R., Garner
Fullerton, Oscar L., Redding (L.M.)
Funk, David C., Iowa City
Furumoto, Kiyoshi, Keosauqua

Gaard, Rasmus R., Radcliffe (L.M.)
Gacusana, Jose M., Akron
Galinsky, Leon J., Des Moines
Gallagher, John P., Oelwein
Gamet, Elmo E., Lamoni
Gangeness, Leonard G., Des Moines
Gann, Edward R., Sigourney
Gannon, James, Laurens
Ganser, Ralph V., Iowa City
Gantz, A. Jay, Greenfield
Ganzhorn, Harold L., Mapleton
Gardner, Harold O., Waterloo
Gardner, John R., Lisbon (L.M.)
Garland, John C., Marshalltown
Garred, John L., Whiting
Garred, William P., Onawa
Garvy, Andrew C., Iowa City
Gauger, John W., Early
Gaukel, Leo A., Onawa
Gault, James B., Creston
Gearhart, George W., Springville (L.M.)
Gee, Kenneth J., Shenandoah
Geiger, Hugh S., Whittemore
Gelfand, Arthur B., Sioux City
Gelfand, Ben B., Sioux City
Gelman, Webster S., Iowa City
Gelperin, Abraham, Des Moines
George, Everett M., Des Moines
George, Louis A., Remsen
Gerard, Russell S. II, Waterloo
Gerken, James F., Waterloo
Gernsey, Merritt N., Long Beach, California (L.M.)
Gerstman, Herbert, Marion
Gessford, Howard H., George
Getty, Everett B., Primghar
Gibbon, William H., Sioux City
Gibbs, George M., Burlington
Gibson, Chelsea D., Sac City
Gibson, Douglas N., Des Moines
Gibson, Paul E., Des Moines
Gibson, Preston E., Davenport
Giegerich, Walter F., Atlantic
Gildea, Dorothy J., Davenport
Giles, Francis E., Fort Dodge
Giles, W. Clark, Council Bluffs
Gilfillan, Clarence D. N., Bloomfield
Gilfillan, Earl E., Bloomfield
Gilfillan, Edwin O., Bloomfield
Gilfillan, Homer J., Jr., Bloomfield
Gillett, Francis A., Oskaloosa (L.M.)
Gillett, R. Giles, Sigourney
Gillette, John M., Iowa City
Gillies, Carl L., Iowa City
Gilmor, Benjamin F., Red Oak (L.M.)
Gingles, Earl E., Onawa
Ginzberg, Fanny T., Cherokee
Gittins, Thomas R., Sioux City
Gittler, Ludwig, Fairfield
Gius, John A., Iowa City
Givens, H. Frank, West Bend (L.M.)
★Gleeson, John J., Fargo, North Dakota
Glenchur, Thomas C., Fresno, California
Glenn, David H., Eldora
Glesne, Otto N., Fort Dodge
Glick, Julius, Clinton
Glissman, Jean B., Des Moines
Glomset, Daniel A., Des Moines
Glomset, Daniel J., Santa Barbara, Calif. (L.M.)
Goad, Robley R., Muscatine
Godbey, Maunis E., Iowa City
Goddard, Chester R., Iowa City
Goddard, William B., Iowa City
Godfrey, Mary Elizabeth, Oakdale
Goebel, Clarence J., Sioux City
Goebel, Kenneth E., Council Bluffs
Goen, Edwin J., Charles City
Goenne, Richard E., Davenport
Goenne, William C., Sr., Davenport
Goggin, John G., Ossian
Goldberg, Louis, Des Moines
Goldman, Bernard R., Davenport
★Goldstein, Morton S., Centerville
Goodenow, Sidney B., Colo
Goodman, Lawrence O., Marshalltown
★Goplerud, Clifford P., Albuquerque, New Mexico
Gordon, Arnold M., Des Moines
Gorrell, Ralph L., Clarion
Goslin, Fred B., Iowa City
Gottsch, Edwin J., Shenandoah
Gottsch, Joseph C., New Orleans, Louisiana
Gould, George R., Grundy Center (L.M.)
Gower, Walter E., Fort Dodge
Graham, James W., Sioux City
Grams, La Verne F., Iowa City
Grandinetti, Arthur F., Oelwein
Grant, John G., Ames
Grau, Amandus H., Denison
Graves, John P., Dubuque
Gray, John F., Melcher (L.M.)
Gray, Henry A., Keokuk (L.M.)
Gray, Ralph E., Eldora
Greco, Donald J., Los Angeles, California
Greco, Louis R., Jr., Boone
Green, Don C., Des Moines
Green, John W., Jr., Des Moines
Greenblatt, Jerald, Cedar Rapids
Greenhill, Solomon, Des Moines
Greenleaf, John S., Iowa City
Gremel, Norman A., Iowa City
Greteman, Theodore J., Dubuque
Griffin, Charles C., Dyersville
Griffin, Frank L., Des Moines (L.M.)
Griffin, Robert E., Sheldon
Griffith, Wylie H., Clinton
Griffith, William O., Council Bluffs
Grimmer, Billy, Grinnell
Grimmer, George T., Charles City
Groben, Elmer S., Columbus Junction
Grossman, Milton D., Sioux City
Grossman, Raymond S., Marshalltown
Grossmann, Edward B., Orange City
Grubb, Merrill W., Galva
Grundberg, Gerhard, Dows
Gugle, Lloyd J., Ottumwa
Gunn, Ross E., Boone (L.M.)
Gurau, Henry H., Des Moines
Gustafson, John E., Des Moines
Gutch, Roy C., Chariton

Gutch, Thomas E., Albia (L.M.)
Gutenkauf, Charles H., Des Moines

★Hach, Felix T., New York, New York
Hagen, Edward F., Decorah
Haggar, David K., Hawarden
Haines, Diedrich J., Des Moines
Hake, Dexter H., Knoxville
Hale, Albert E., Mason City
Hall, Forest F., Dunedin, Florida (A.M.)
Hall, Bonnybel A., Maynard
Hall, Cluley C., Maynard
Hallam, F. Tulley, Des Moines
Hallberg, Harold C., Oelwein
Halloran, William H., Audubon
Halpin, Lawrence J., Cedar Rapids
Hamilton, Ben C., Jefferson
Hamilton, Cecil V., Garner
Hamilton, Henry E., Iowa City
Hamilton, William K., Iowa City
Hansell, William W., Des Moines
Hansen, Fred A., Red Oak
Hansen, Niels M., Des Moines
Hansen, Robert R., Marshalltown
Hansen, Russell R., Storm Lake
Hanske, Edward A., Burlington
Hanson, Carl A., Waterloo
Hanson, Henry M., Waverly
Hanson, Walter N., Mason City
Hanssmann, Irving J., Council Bluffs
Hardin, John F., Bedford
Hardin, Robert C., Iowa City
Harding, Dale A., Eagle Grove
Hardwig, Oswald C., Waverly
Hardwig, Robert P., Waverly
Harken, Conreid R., Osceola
Harkness, Gordon F., Davenport (L.M.)
Harman, Dean W., Glenwood
Harms, George E., Norway
Harnagel, Edward J., Des Moines
Harper, George E., Fort Madison
Harper, Harry D., Fort Madison
Harper, William H., Keokuk
Harper, William H., Jr., Keokuk
Harrington, Arlan F., Cedar Rapids
Harrington, Louis E., Danbury
Harrington, Raymond J., Sioux City
Harris, D. Dale, Marshalltown
Harris, Grove W., Marshalltown (L.M.)
Harris, Jack T., Lu Verne
Harris, Ray R., Dubuque
Hart, Paul V., Des Moines
Hartley, Byron D., Mount Pleasant
Hartman, Frank T., Waterloo (L.M.)
Hartman, Howard J., Waterloo
Hartung, Walter, Davenport
Harvey, Glen W., Cedar Rapids
Harwood, Arthur M., Waverly
★Hastings, Richard A., Pensacola, Florida
Haufe, W. David, Bloomfield
Hausheer, Herman J., Mount Ayr
Havlik, Al J., Tama
Hawkins, Charles P., Clarion
Hayden, Milford D., Marcus
Hayes, William P., Cedar Rapids
Hayne, Robert A., Des Moines
Hayne, Willard W., Des Moines
Hazlet, Kenneth K., Dubuque
Hea, James J., Guttenberg
Heady, Conda C. C., Bloomfield (L.M.)
Heald, Clarence L., Sigourney (L.M.)
Heathman, Frank E., Fonda (L.M.)
Hecker, John T., Cedar Rapids
Heeren, Ralph H., Des Moines
Heffernan, Chauncey E., Sioux City
★Heffron, John F., Rapid City, South Dakota
Hegg, Lester R., Rock Valley
Hegstrom, George J., Ames
Heilman, Elwood H., Ida Grove
Heilman, Robert D., Sioux City
Heimann, Verne R., Sioux City
Heise, Carl A., Jr., Jewell
Heise, Harris R., Marshalltown
Heise, Robert H., Story City
Heitzman, Paul O., Cedar Rapids
*Heles, John B., Dubuque (L.M.)
Helling, Harry B., Fort Madison
Helseth, Carleton T., Des Moines
Helt, Vernon G., Moville
Henderson, Lauren J., Cedar Falls
Henderson, Walker B., Oelwein
Hendricks, Atlee B., Davenport
Hendrickson, Alvin H., Sioux City
Henkin, John H., Sioux City
Hennes, Raphael J., Oxford
Hennessey, John M., Manilla
Hennessy, Felix A., Calmar
Hennessy, J. Donald, Council Bluffs
Henningsen, Artemus B., Clinton
Henry, Clyde A., Farson (L.M.)
Henry, Hiram B., Des Moines
Henstorf, Harold R., Shenandoah
Herman, John C., Boone
Herny, Peter M., Prairie City
Herrick, Thomas G., Gilmore City
Herrick, Walter E., Ottumwa
Herrmann, Christian H., Jr., Amana
Hersey, Nelson L., Independence
Hess, John Jr., Des Moines
Heuermann, Dorothy J., Coulter
Heusinkveld, Henry J., Clinton
Hickenlooper, Carl B., Winterset
Hickey, Robert C., Iowa City
Hickman, Charles S., Centerville
Hicks, Wayland K., Sioux City
Hildebrand, Howard H., Ames
Hill, Don E., Clinton
Hill, James W., Mount Ayr
Hill, Julia Ford, Santa Barbara, California (L.M.)
Hill, Lee Forrest, Des Moines
Hill, Richard W., Lake Mills
Hines, Ralph E., Des Moines
Hirleman, Hal R., Cedar Rapids
Hirsch, Harry N., Sioux City
Hirst, Donald V., Council Bluffs
★Hodges, Robert E., Silver Spring, Maryland
Hoenig, Howard E., Dubuque
Hoeven, Edward B., Ottumwa
Hoffman, Paul M., Tipton (L.M.)
Hoffmann, Robert W., Des Moines
Hofmann, William P., Davenport
★Hogenson, George B., Eagle Grove
Hollander, Werner M., Davenport
Hollis, Edward L., Marengo (L.M.)
Holloway, Ralph J., Iowa City
Holtey, Joseph W., Ossian
Hombach, Walter P., Council Bluffs
Hommel, Placido R. V., Elkader
Honke, Edward M., Sioux City
Hooper, Lester E., Indianola
Hopkins, David H., Glidden
Hornaday, William R., Des Moines
Hornberger, John R., Manning
Horst, Arthur W., Sioux City
Horton, Robert R., Algona
Hosford, Horace F., Burlington
Hospodarsky, Leonard J., Des Moines
Hostetter, John I., Des Moines
Houghton, Earl J., Bettendorf
Houlahan, Jay E., Mason City
Houlihan, Francis W., Ackley
Houser, Blanche W., Cedar Rapids
Houser, Cass T., Cedar Rapids (L.M.)
Householder, Harold A., Winthrop (L.M.)
Howar, Bruce F., Webster City
Howard, Dwayne E., Sioux City
Howard, Lloyd G., Council Bluffs
★Howe, Gerald W., Grosse Ile, Michigan
Howell, Billy D., Iowa City
Howell, David A., Dubuque
Howell, Elias B., Ottumwa
Hoyt, John L., Creston
Hruska, Glen J., Belmond
Huber, Robert A., Charter Oak
Huber, Robert H., Osage
Hubiak, John, Odebolt
Hudek, Joseph W., Garnavillo (L.M.)
Huey, John R., Cedar Rapids
Huffman, William C., Iowa City
Hughes, Parker K., Des Moines
Hughes, Robert O., Ottumwa
Hughet, Keith R., Osage
Hull, Gene I., Des Moines
*Hull, Henry C., Washington (L.M.)
Hulse, Roy A., Burlington
Hunt, Van W., Mason City
Hunting, Ralph D., Cedar Rapids
Huntley, Charles C., Avoca
Hurevitz, Hyman M., Davenport
Huston, Daniel F., Burlington
Huston, K. Garth, Des Moines
Huston, Marshall D., Cedar Falls
Huston, Paul E., Iowa City
Hyatt, Charles N., Corydon
Hyde, John R., Emmetsburg

Ihle, Charles W., Cleghorn (L.M.)
Ingham, Paul G., Mapleton
Ingle, Newell G., Cedar Rapids
Ingraham, David R., Sewal
Ireland, William W., Ottumwa
Irish, Thomas J., Forest City
Irving, Noble W., Des Moines
Isenberg, Bertice A., Lohrville
Isham, Robert B., Osage

Jack, Darwin B., Oelwein
Jackson, James M., Jefferson (L.M.)
Jackson, James S., Mount Pleasant
Jacobs, Carl A., Sioux City
Jacobs, Edward L., Conrad
Jacoby, James A., Burlington
Jacques, Lewis H., Lone Tree
Jaenicke, Kurt, Clinton (L.M.)
Jaggard, Robert S., Oelwein
James, Audra D., Des Moines (A.M.)
James, David W., Des Moines
James, Lora D., Fairfield
James, Peter E., Audubon (L.M.)
Janse, Phillip V., Algona (L.M.)
January, Lewis E., Iowa City
Jaquis, John R., Reinbeck
Jardine, George A., New Virginia
Jarvis, Harry D., Chariton (L.M.)
Jaskunas, Stanley R., Bloomfield
Jauch, Karl E., La Porte City
Jeffries, James H., Waterloo
Jeffries, Milo E., Marshalltown
Jeffries, Roy R., Waukon
Jenkins, George A., Albia (L.M.)
Jenkins, George D., Burlington
Jenkins, Hanley F., Ogden
Jenkinson, Harry R., Iowa City
Jenks, Alonzo L., Jr., Des Moines
Jensen, Kenneth V., Clarinda
Jensen, LeRoy E., Audubon
Jerdee, Ingebrecht C., Clermont
Jerome, Peter, Davenport
Jirsa, Harold O., Cedar Rapids
Johann, Albert E., Des Moines
Johnson, Aaron Q., Sioux City
Johnson, Calvin J., Iowa City
Johnson, Christine A., Iowa City
Johnson, Clarence A., Coon Rapids
Johnson, G. Raymond, Ottumwa
Johnson, Harvey A., Atlantic
Johnson, Merlin H., Seattle, Washington
Johnson, Merton A., Nevada
Johnson, Norman M., Clarinda
Johnson, Richard M., Denison
Johnson, Robert J., Iowa Falls
Johnson, Robert M., Des Moines
Johnson, Robert W., Iowa City
Johnson, Robert W., Temple, Texas
Johnson, Victor P., Des Moines
Johnson, William A., Iowa Falls
Johnston, Edward V., Waterloo
Johnston, C. Harlan, Des Moines
Johnston, Florence, Cedar Rapids
Johnston, George B., Estherville
Johnston, Harry L., Ames
Johnston, Helen, Des Moines
Johnston, James P., Des Moines
Johnston, Roy E., Iowa City
★Johnston, Theodore L., Cheyenne, Wyoming
Johnston, Wayne A., Dubuque
Jolly, William P., Lawton, Oklahoma
Jones, Cecil C., Des Moines
Jones, Charles L., Gilmore City (L.M.)
Jones, Clare C., Spencer
Jones, Harold W., Sioux City
Jones, Harry J., Cedar Rapids (L.M.)
Jones, Maynard L., Colfax
Jongewaard, Albert J., Jefferson
Jongewaard, Jean, Jefferson
Jongewaard, Robert E., Scranton
Joranson, Robert E., Council Bluffs
Jordan, John W., Maquoketa
Jowett, John R., Clinton
Joyce, George T., Mason City
Joynt, Albert J., Waterloo
Joynt, Michael F., Marcus
Joynt, Robert J., Iowa City
Judiesch, Kenneth J., Iowa City
Juel, Einer M., Atlantic

Kaack, Harry F., Jr., Clinton
Kadesky, Melvin C., Iowa City
Kaelber, William W., Iowa City
Kahler, Hugo V., Reinbeck (L.M.)
Kane, Thomas E., Boone
Kanealy, John F., Cedar Rapids
Kapke, Franklin W., Mason City
Kaplan, David D., Sioux City
Kaplan, Robert M., Davenport
Kasiske, Walter B., Keokuk
Kassmeyer, John C., Dubuque
Kast, Donald H., Des Moines
Katzmann, Frederick S., Des Moines
Keane, Kenneth M., Sioux City
Keech, Roy K., Cedar Rapids (L.M.)
Keen, Burlin E., Des Moines
Keeney, George H., Mallard
Keettel, William C., Iowa City
Kehoe, Joseph L., Davenport
★Keil, Philip G., Maxwell AFB, Alabama

Keiser, Orris S., Muscatine
Keith, Charles W., Strawberry Point (L.M.)
Keith, John J., Marion
Kelberg, Melvin R., Sioux City
Kelley, Edmund J., Des Moines
Kelley, John H., Des Moines
Kelley, Newell R., Des Moines
Kelly, Anthony H., Sioux City
Kelly, Dennis H., Des Moines
Kelly, John F., Sioux City
Kelly, John F., Fort Dodge
Kelly, William J., Dubuque
Kelsey, James W., Des Moines
Kemp, Robert R., Keokuk
Kenefick, John N., Algona
Kennedy, Elizabeth S., Oelwein (L.M.)
Kenney, Bernard E., Woodbine
Keohen, Gerald F., Dubuque
Kern, George A., Des Moines
Kern, Lester C., Waverly (L.M.)
Kerr, W. Hawley, Hamburg
Kershner, Frank O., Clinton
Kersten, Ernest M., Fort Dodge
Kersten, Herbert H., Fort Dodge
Kersten, John R., Fort Dodge
Kersten, Paul M., Fort Dodge
Kerwick, Joseph M., New Hampton
Kestel, John L., Waterloo
Ketner, Lester E., Oelwein
Kettlekamp, Enoch G., Monona
Keyser, Earl L., Marshalltown
Keyser, Ralph E., Marshalltown (L.M.)
Kieck, Ernest C., Etowah, North Carolina
Kienzle, William K., Iowa City
Kiesau, Milton F., Postville
Kiesling, Harry F., Lehigh
Kilgore, Ben F., Des Moines
Kimball, John E., West Liberty
Kimberly, Lester W., Davenport
King, Dean H., Spencer
*King, Oran W., Des Moines (L.M.)
King, Ross C., Clinton
Kingsbury, Charles L., Keokuk
Kingsbury, Kenneth R., Ottumwa
Kirch, Walter, Des Moines
Kirkendall, Walter M., Iowa City
Kirkham, Lindsay J., Mason City
Kitson, Walter W., Atlantic (A.M.)
Klein, John L., Jr., Muscatine
Klein, Robert F., Muscatine
Kleinberg, Henry E., Des Moines
Kline, Samuel, Sioux City
Klocksiem, Harold L., Des Moines
Klocksiem, Roy G., Rockwell City
Klok, George J., Council Bluffs
Kluever, Herman C., Fort Dodge
Knight, Benjamin L., Cedar Rapids
Knight, Edson C., Marshalltown
Knight, Russell A., Rockford
Knipfer, Robert L., Jesup
Knosp, Alton, Paton
Knosp, Norman C., Belle Plaine
Knouf, Clare E., Lake City
Knott, Pierce D., Sioux City
Knowles, Fred L., Fort Dodge
Knox, James M., Cedar Rapids (L.M.)
Knox, Robert M., Des Moines
Knutsen, Arne, Sioux City
Koch, John S., Mason City
Koelling, Lloyd H., Newton
Kohrs, Edward F., Davenport
Koontz, Lyle W., Vinton
Kopecky, Edward F., Cedar Rapids
Kopsa, Walter J., Tipton
★Koptik, George, Jr., Sault Ste. Marie, Michigan
Korfmacher, Edwin S., Grinnell
Kornder, Louis H., Davenport
Korns, Horace M., Iowa City
Kos, Clair M., Iowa City
Koser, Donald C., Cherokee
Krettek, John E., Council Bluffs
Krigsten, Joe M., Sioux City
Krigsten, William M., Sioux City
Kroack, Kalman J., Buffalo Center
Kruckenberg, William G., Cedar Rapids
Krueger, Norman L., Milwaukee, Wisconsin
Kruml, Joseph G., Council Bluffs
Kruse, Otto E., Tipton
Kruse, Rufus H., Iowa City
Kuehn, Willard G., Clarinda
Kuhl, Augustus B., Davenport (L.M.)
Kuhl, Augustus B., Jr., Davenport
Kuhl, Robert H., Creston
Kuhn, Mark A. R., Waterloo
Kuker, Leo H., Carroll
Kulp, Raymond R., Davenport (L.M.)
Kurtz, Cecilia M., Cedar Rapids
Kyle, William S., Washington (L.M.)

Lagen, Mansfield S., Dubuque
Lagoni, Ralph P., Eldridge
La Master, Hugh, Belle Fourche, South Dakota
Lamb, Frederick H., Davenport
Lamb, Harry H., Davenport
Lambrecht, Paul B., Des Moines
Lande, Jacob N., Sioux City
Langworthy, Henry G., Dubuque (L.M.)
Lannon, James W., Mason City
La Porte, Paul A., Perry
Larimer, Robert C., Sioux City
Larimer, Robert N., Sioux City
Larsen, Elmer A., Centerville
Larsen, Frank S., Fort Dodge
Larsen, Harold T., Fort Dodge
Larsen, Lawrence V., Harlan
Larson, Andrew G., Dickens (L.M.)
Larson, Carroll B., Iowa City
Larson, Erling, Davenport
★Larson, Gerald E., New York, New York
Larson, Lester E., Decorah
Larson, Marvin O., Hawarden
La Rue, Jack L., Anita
Latchem, Charles W., Des Moines
Latimer, Milton J., Burlington
Laube, Paul J., Dubuque
Laughlin, Ralph M., Cedar Rapids
Lauvsted, Edward E., Osceola
Lavender, John G., George
Lawler, Matthew P., Jr., Des Moines
Lawlor, Jeremiah F., Cherokee
Layton, Jack M., Iowa City
Leander, Richard B., Council Bluffs
Lederman, Joseph, Oskaloosa
Lee, Robert W., Fort Dodge
Lee, Wayne R., Burlington
Leehey, Paul J., Independence
Leffert, Frank B., Centerville
Lehman, Emery W., Bluffton, Indiana (L.M.)
Lehr, Sylvan M., Cedar Rapids
Leighton, Lewis L., Fort Dodge
Leinbach, Samuel P., Belmond
Leinfelder, Placidus J., Iowa City
Leiter, Herbert, Sioux City
Lekwa, Alfred H., Story City
Lemke, Betty A. T., Des Moines
Lemon, Kenneth M., Oskaloosa
Lenzmeier, Albert J., Davenport
Leonard, Frederick S., Dubuque (L.M.)
Leonard, Thurman K., Madrid
LePoidevin, Jean S., Waterloo
Lesiak, John J., Titonka
Levy, James W., Sioux City
Lewis, Bernard I., Iowa City
Lewis, Faye C., Webster City
Lewis, William B., Webster City
*Lichter, Theodore W., Edgewood
Lierle, Dean M., Iowa City
Lierman, Clifford E., Lake View
Liken, John A., Creston
Limbert, Edwin M., Council Bluffs
*Limburg, J. Irwin, Jefferson
Limburg, John I., Jr., Jefferson
Lincoln, Simon E., Des Moines (L.M.)
Lindell, Sherman E., Le Mars
Linder, Enfred E., Ogden
Lindholm, Claire V., Armstrong
Lindley, Ellsworth L., Cedar Rapids
Linge, Scott, Fayette
Liska, Edward J., Ute
Lister, Eugene E., Dallas Center
Lister, Kenneth E., Ottumwa
Lloyd, John M., Washington
Locher, Robert C., Cedar Rapids
Lockhart, Harold A., Cedar Rapids
Lodwick, Gwilym S., Iowa City
Loeck, John F., Independence
Loes, Anthony M., Dubuque
Lohman, Frederick H., Waterloo
Lohmann, Carl J., Burlington
Lohr, Phillips E., Churdan
Long, Draper L., Mason City
Long, Llewelyn L., Atlantic
Longworth, Wallace H., Boone
Loomis, Frederick G., Waterloo
Lorfeld, Gerhard W., Davenport
Losasso, David A., Davenport
Losh, Clifford W., Des Moines (L.M.)
Losh, Clifford W., Jr., Des Moines
Love, Francis L., Iowa City (L.M.)
Lovejoy, E. Parish, Des Moines
Loving, Luther W., Estherville
Lowry, Charles F., Council Bluffs
Loxterkamp, Edward O., Rolfe
Ludwig, Clarence J., Waterloo
Lueck, Arthur G., Des Moines
Luehrsmann, Bernard C., Dyersville
Luke, Edward, Coin (L.M.)
Lulu, Donald J., Des Moines
Lundvick, Arthur W., Iowa City (L.M.)
Luse, Ralph F., Clinton
Lutton, John D., Sioux City
★Lyman, Frank L., Beaufort, South Carolina
Lynn, Clarence E., Dubuque
Lyon, John D., Hopkins, Minnesota
Lyons, Mary Louise, Des Moines

MacGregor, John K., Mason City
MacLeod, Hugh G., Greene
MacQueen, John C., Iowa City
McAllister, William G., Manly
McBride, James T., Des Moines (L.M.)
McBride, Robert H., Sioux City
McCaffrey, Eugene H., Des Moines
McCall, John H., Allerton
McCarthy, Frank D., Sioux City
McClean, Earl D., Des Moines
McClellan, John W., Onawa
McClure, Gail A., Ames
McClurg, Frank H., Fairfield
McConkie, Edwin B., Cedar Rapids
McConkie, Willis L., Carroll
McConnell, Robert W., Davenport
McCool, Robert F., Clarion
McCoy, Harold J., Des Moines
★McCoy, John T., Philadelphia, Pennsylvania
McCrary, W. Ashton, Lake City
McCreedy, Murry L., Washington
McCreight, George C., Carmel Valley, California (A.M.)
McCuistion, Harry M., Sioux City
McDonald, Don J., Cedar Rapids
McDowall, Gilbert T., Gladbrook (L.M.)
McDowell, William O., Grundy Center (L.M.)
★McFadden, F. Ross, Corpus Christi, Texas
McFarland, Guy E., Ames
McFarland, Guy E., Jr., Ames
McFarland, Julian E., Ames
McGahey, William B., Webster City
McGarvey, Cornelius J., Des Moines
McGeehon, Robert C., Indianola
McGilvra, Arthur L., Sioux Center
McGinnis, George C., Fort Madison
McGrane, Merle J., New Hampton
McGuire, Kenneth L., Keota
McGuire, Roy A., Fairfield
McHugh, Charles P., Sioux City
McIllece, Raymond C., Fort Madison
McIntosh, Philip D., Ottumwa
McIntyre, Caryl C., Waterloo
McKay, Richard V., Jr., Dubuque
McKean, Frank F., Allison
McKittrick, John C., Burlington
McLaughlin, Charles W., Washington (L.M.)
McLaughlin, Philip A., Iowa Falls
McMahon, Arthur E., Jr., Mason City
McMahon, Thomas, Garner (L.M.)
McMeans, Thomas W., Davenport
McMillan, George J., Fort Madison
McMillan, James T., III, Des Moines
McMurray, Edward A., Newton
McMurray, Harry N., Burlington
McNamara, Robert J., Dubuque
McNamee, Jess H., Des Moines
McQuiston, J. Stuart, Cedar Rapids
McTaggart, William B., Fort Dodge
McVay, Melvin J., Lake City
Mackin, M. Charles, Des Moines (L.M.)
Macrae, James G., Creston (L.M.)
Macy, William W., Iowa City
Margaret, Ernest C., Glenwood
Magee, Emery E., Waterloo
Mahoney, James D., Council Bluffs
Mailliard, Robert E., Storm Lake
Maixner, William D., Ottumwa
Maland, Donald O., Cresco
Maloy, Wayland H., Shenandoah
Manderscheid, Robert A., Boone
Mangan, J. Thomas, Forest City
Manning, Ephraim L., Davenport
Manthey, Charles E., Waterloo
*Mantle, William B., Albion (L.M.)
Maplethorpe, Charles W., Toledo
Maplethorpe, Charles W., Jr., Toledo
Marble, Edwin J., Marshalltown
Marble, Pearl L., Liscomb (L.M.)
Marble, Willard P., Marshalltown
Margulies, Harold, Des Moines
Marinos, Harry G., Mason City
Maris, Cornelius, Sanborn
Mark, Edward M., Clarksville
Mark, Milton S., Des Moines

Marker, John I., Davenport
★Marme, George W., DeWitt
Marquis, Fred M., Waterloo
Marquis, George S., Waterloo
Marsh, Frederick E., Council Bluffs
Marsh, Frederick E., Jr., Council Bluffs
Marshall, Jean A., Solon
Martin, James W., Holstein
Martin, Josef R., Carroll
Martin, Lee R., Council Bluffs
Martin, Ronald F., Sioux City
Martin, Sidney D., Carroll (L.M.)
Martini, Henry F., Council Bluffs
Mason, Edward E., Iowa City
Mason, Robert P., Des Moines
Mason, Stella M., Mason City (L.M.)
Mast, Truman M., Washington
Mater, Dwight A., Knoxville
Matheson, John H., Des Moines
Mathiasen, Emmett B., Council Bluffs
Mathiasen, Henning W., Council Bluffs
Mathiasen, John W., Council Bluffs
Matthey, Carl H., Davenport
Matthey, Walter A., Davenport
Mattice, Lloyd H., Sheldon
Mattice, Roger J., Sioux Rapids
Mauritz, Emory L., Des Moines
Maxwell, Charles T., Sioux City
Maxwell, John, What Cheer
Maxwell, John R., Iowa City
May, Charles D., Iowa City
May, George A., Forest Grove, Oregon
Mazur, Theodore T., Burlington
Meffert, Clyde B., Cedar Rapids
Megorden, William B., Mount Pleasant
Mehrl, William J., Manchester
Melgaard, Robert T., Dubuque
Mellen, Robert G., Clinton
Meredith, Loren K., Des Moines
Merillat, Herbert C., Des Moines
Merkel, Arthur E., Des Moines (L.M.)
Merkel, Byron M., Des Moines
Merritt, Arthur M., Des Moines (L.M.)
Merritt, Benjamin F., Dubuque
Merritt, James O., Des Moines
Merselis, Harold K., Audubon
Mershon, Clinton E., Adel (L.M.)
Meservey, Maynard A., Jr., Des Moines
Meyer, Alfred K., Clinton
★Meyer, Paul G., New York, New York
Meyer, Robert J., Perry
Meyers, Frank W., Dubuque (L.M.)
Meyers, Paul T., Bloomfield
Meyers, Robert P., Ottuma
Michaelson, Beryl F., Dakota City
Michaelson, Don, Sac City
Michelfelder, Theodore J., Fort Dodge
Michener, Robert B., Iowa City
Middleton, William H., Cedar Rapids
Mikelson, Clarence J., Waterloo
Miller, Chester I., Iowa City
Miller, Donald F., Williamsburg
Miller, Enos D., Wellman
Miller, Garfield, Calmar
Miller, Howard L., Cedar Rapids
Miller, Jay R., Wellman
Miller, Keith E., Agency
Miller, Lawrence A., North English
Miller, Lawrence A., II, North English
Miller, Richard L., Waterloo
Miller, Robert C., Waterloo
Miller, Temple M., Muscatine
Miller, Wilbur R., Iowa City
*Mills, Frank W., Ottumwa (L.M.)
Miltner, Leo J., Davenport
Minassian, Harootune A., Des Moines (L.M.)
Minassian, Thaddeus A., Des Moines (L.M.)
Miner, James B., Charles City
Mirick, Donald F., Clinton
Mitchell, Claire H., Cincinnati
Mitchell, Duane E., Mount Ayr
Mitchell, Richard C., Waterloo
Moberly, John W., Dubuque
Moe, Ralph H., Griswold
Moeller, Jay A., Iowa City
Moen, Stanley T., Cedar Rapids
Moermond, James O., Buffalo Center
Moershel, Henry G., Homestead
Moershel, William J., Cedar Rapids
Moessner, Harold, Amana
Monnig, Philip J., Sioux City
★Montgomery, Albert E., Phoenixville, Pennsylvania
Montgomery, George E., Ames
Mongomery, Guy E., Washington
Montz, Fred, Lowden
Moon, Barclay J., Cedar Rapids
Moon, Merritt D., Waterloo
Mooney, James C., Des Moines
Moore, Carlyle C., Emmetsburg
Moore, Edson E., Fort Dodge
Moore, Jesse C., Eldon (L.M.)
Moore, Pauline V., Iowa City
Moore, Richard M., Des Moines
Morehead, Harold B., Underwood
Mordaunt, Richard H., Nevada
Morgan, Dale D., Iowa City
Morgan, Francis W., Ottumwa
Morgan, Harold W., Mason City
Morgan, Jack N., Fairfield
Morgan, Paul W., Mason City
Morgan, Rex L., Sioux City
Morganthaler, Otis P., Templeton (L.M.)
Moriarty, Darwin L., Council Bluffs
Morrison, John R., Glidden
Morrison, John W., Alta (L.M.)
Morrison, Robert E., Waterloo
Morrison, Roland B., Carroll
*Morrison, Wesley J., Cedar Rapids (L.M.)
Morrissey, George E., Davenport
Morrissey, William J., Des Moines
Morse, Charles H., Eagle Grove (L.M.)
Mosher, Martin L., Jr., Iowa City
Mott, William H., Farmington (L.M.)
Motto, Edwin A., Davenport
Mountain, George E., Des Moines
Moyers, Jack, Iowa City
Mueller, Albert C., Monona
Mugan, Robert C., Sioux City
Mulry, William C., Carroll
Mulsow, Frederick W., Cedar Rapids
Munger, Elbert E., Jr., Spencer
Munns, Richard E., Hampton
Murchison, Kenneth, Sidney (L.M.)
Murphey, Arlo L., Fredericksburg
Murphy, Cornelius B., Alton
Murphy, George C., Waterloo
Murphy, James H., Des Moines
Murphy, Robert E., Fort Madison
Murray, Frederick G., Cedar Rapids (L.M.)
Murray, Jonathan H., Burlington
Murtaugh, James E., New Hampton
Myerly, William H., Des Moines
Myers, Kermit W., Sheldon
Myers, Robert W., Monticello

Nakashima, Victor K., Dubuque
Nash, Edwin A., Ottumwa (L.M.)
Nash, Warren, Waterloo
Nauman, Ernest C., Waterloo
Neal, Emma J., Cedar Rapids (L.M.)
Nederhiser, Morgan I., Cascade
Needles, Roscoe M., Atlantic
Neglia, Fortunato J., Maxwell
Neligh, Gordon L., Jr., Council Bluffs
Nelken, Leonard, Clinton
Nelson, Arnold L., Des Moines
Nelson, F. Lawrence, Jr., Ottumwa
Nelson, Leo C., Jefferson
Nelson, Norman B., Iowa City
Nelson, Paul O., Emmetsburg
Nelson, Robert J., Clinton
Nemec, Joseph J., Cedar Rapids
Nemmers, Gerald J., Washington
Netolicky, Robert Y., Cedar Rapids
Neufeld, Robert J., Davenport
Neuzil, William J., Cedar Rapids
Newland, Don H., Belle Plaine
Newland, Donald O., Des Moines
Newman, Robert W., Iowa City
Niblock, George F., Homewood, Illinois (L.M.)
Nicholson, Clyde G., Des Moines
Nicoll, Charles A., Panora
Nicoll, David T., Mitchellville (L.M.)
Nielsen, Arnold T., Ankeny
Nielsen, Glen E., Des Moines
Nielsen, Rudolph F., Cedar Falls
Nielson, Arthur L., Council Bluffs
Niemann, Theodore V., Brooklyn
Nierling, Paul A., Cresco
Nitzke, Everett A., Des Moines
Noble, Earl H., Clemons (L.M.)
Noble, Nelle S., Des Moines (L.M.)
Noble, Rusl P., Alta
Noe, Carl A., Cedar Rapids
Noe, Charles F., Amana (L.M.)
Nolan, John C., Corning
Nomland, Ruben, Iowa City
Noonan, James J., Marshalltown
Nord, Donald H., Cambridge
Nordin, Charles A., Des Moines
Nordschow, Carleton D., Iowa City
Norris, Lewis D., Newton
North, Frank R., Morning Sun (L.M.)
Noun, Louis J., Des Moines
Noun, Maurice H., Des Moines
Northrup, Maurice L., Humboldt
Nowlis, Gerald R., Iowa City
Nyquist, David M., Eldora

Ober, Frank G., Davenport
O'Brien, Lyal J., Fort Dodge
O'Brien, Stephen A., Mason City
O'Brien, Stephen A., Jr., Dubuque
O'Connor, Edwin C., New Hampton
O'Donnell, Joseph E., Clinton
O'Donoghue, Archibald F., Sioux City
O'Donoghue, James H., Storm Lake (L.M.)
Oelrich, Carl D., Sioux Center
Oggel, Herman D., Maurice (L.M.)
O'Keefe, Paul T., Waterloo
O'Leary, Francis B., Sibley
Olin, Elvin E., Dubuque
Olsen, Martin I., Des Moines (L.M.)
Olsen, Ranald E., Milton
Olson, Evelyn M., Winterset
★Olson, Stewart O., Seattle, Washington
O'Neal, Harold E., Tipton
Orcutt, Paul E., Marion
Orelup, Don N., Albia
Ortmeyer, Donald W., Paton
Orton, Lawrence C., Mason City
Osborn, Clarence R., Dexter
Osincup, Paul W., Sioux City
Osten, Burdette H., Northwood
Ostler, Howard B., Iowa City
O'Toole, Laurence C., Le Mars
O'Toole, Roger L., Phoenix, Arizona
Ottilie, Donald J., Oelwein
Otto, Paul C., Fort Dodge
Owca, Anthony S., Centerville
Owen, Richard V., Washington
Owen, William E., St. Ansgar

Pace, Arthur A., Toledo (L.M.)
Packard, Douglas K., Dubuque
Page, Elizabeth B., Iowa City
Page, Wesley M., Montezuma
Pagelson, Otto H., Pharr, Texas (L.M.)
Pahlas, Henry M., Dubuque
Paige, Ralph T., La Porte City
Painter, J. Carl, Dubuque
Palcheff, Christ L., Fairfield
Palmer, Carson W., Guttenberg
Palmer, Howard C., West Liberty
Palumbo, Louis T., Des Moines
Paragas, Modesto R., Creston
Parish, John R., Grinnell
Parke, John, Cedar Rapids
Parker, Loran F., Iowa Falls
Parker, Robert L., Des Moines (L.M.)
Parks, Claude O., Iowa City
Parks, John L., Muscatine
Parson, Victor G., Des Moines
Parsons, John C., Des Moines
Paschal, George A., Webster City
Pascoe, Paul L., Carroll
Patterson, John N., Burlington (L.M.)
Patterson, Roy A., Webster City
Paul, John D., Anamosa
Paul, Richard E., Des Moines
Paul, William D., Iowa City
Paulsen, Donald A., Victor
Paulsen, Herbert B., Harris
Paulson, Jerome F., Mason City
Paulus, Edward W., Iowa City
Paulus, James W., Dubuque
Pearlman, Leo R., Des Moines
Pearson, George J., Burlington
Peart, John C., Davenport
Peasley, Harold R., Des Moines
Peck, Lowell J., Wellsburg
Pedersen, Arthur M., Council Bluffs
Pedersen, Paul D., Council Bluffs
Peggs, Harold J., Creston
Peisen, Conoan J., Des Moines
Pelz, Werner P., Charles City
Penly, Don H., Cedar Falls
Pennington, Orville J., Dexter (L.M.)
Perel, Ada R., Des Moines
Perkins, Franklin C., Hedrick
Perkins, Rollin M., II, Davenport
Perley, Arthur E., Waterloo
Pester, George H., Council Bluffs
Peters, Earl E., Muscatine
Petersen, Donal C., Burlington
Petersen, Emil C., Atlantic
Petersen, Millard T., Atlantic
Petersen, Robert E., Dubuque
Petersen, Vernon W., Clinton
Peterson, Elroy R., Ames
Peterson, Evan A., Burlington
Peterson, Frank R., Cedar Rapids
Peterson, John C., Jr., Hartley
Peterson, Ray W., Clear Lake
Peterson, Richard J., Panora
Pfaff, Robert A., Dubuque

Pfeiffer, Donald W., McGregor
Pfeiffer, Harry E., Riviera Beach, Florida (L.M.)
Pfohl, Anthony C., Dubuque
Phelan, Mary Patricia, Altoona
Phelps, C. Ray, Ottumwa
Phelps, Gardner D., Waterloo
Phelps, Richard E. H., New Sharon
Pheteplace, Willard S., Davenport
Phillips, Albin B., Clear Lake (L.M.)
Phillips, Allan B., Des Moines
Phillips, Clarence P., Muscatine
Phillips, Walter B., Montezuma
Piburn, Marvin F., South Rhodesia, Africa
Piekenbrock, Frank J., Dubuque
Piercy, Kenneth C., Ames
Pierson, Lawrence E., Sioux City
Pitcher, Arlo L., Belmond
Pitluck, Harry L., Laurens
Pittinger, Charles B., Iowa City
Plager, Vernon H., Waterloo
Plankers, Arthur C., Dubuque
Plass, Everett D., Saranac Lake, New York (L.M.)
Poepsel, Frank L., West Point
Ponseti, Ignacio V., Iowa City
Poore, Samuel D., Villisca
Porter, Charles E., Redfield (L.M.)
Porter, Lawrence W., Indianola
Porter, Philip M., Des Moines
Porter, Richard C., Des Moines
Porter, Robert J., Des Moines
Porter, S. Dale, Grinnell
Posner, Edward R., Des Moines (L.M.)
Posner, Edward R., Jr., Des Moines
Powell, Lester D., Des Moines
Powell, Robert A., Shenandoah
★Powell, Robert M., Fort Hood, Texas
Powers, George H., Shenandoah
Powers, Henry R., Emmetsburg
Powers, Ivan R., Waterloo
Powers, John L., Estherville
Preece, Wade O., Waterloo
Prescott, Kenneth H., Storm Lake
Presnell, William H., Charlotte
Prewitt, Leland H., Ottumwa
Price, Alfred S., Des Moines (L.M.)
Priestley, Joseph B., Des Moines
Proctor, Rothwell D., Cedar Rapids
Prouty, James V., Cedar Rapids
Province, William, Jr., Dubuque
Ptacek, Joseph L., Webster City
Pugh, Philip F. H., Sioux City
Pumphrey, Loira C., Keokuk
Puntenney, Andrew W., Boone
Purdy, William O., Des Moines

Quinn, Francis P., Dubuque

Radcliffe, Christian E., Iowa City
Radicia, Lucy M., Council Bluffs
Rahn, Gordon E., Mount Vernon
Rainy, Curtis W., Elma
Ralston, Furman, Knoxville
Rambo, David T., Ottumwa (L.M.)
Ramsdell, Stuart T., Clarinda
Randall, John H., Iowa City
Randall, Ross C., Waterloo
Randall, William L., Hampton
Rankin, Isom A., Iowa City
Rankin, John R., Keokuk
Rankin, William, Keokuk (L.M.)
Ransom, Harry E., Des Moines
Rapoport, Anita E., Davenport
Rater, David L., Ottumwa
Rathe, Herbert W., Waverly
Rausch, Gerald R., Sioux City
Ravreby, Mark D., Des Moines
Raw, Elmer J., Pierson (L.M.)
Reading, Donald S., Iowa City
Readinger, Harry M., New London
Redfield, Earl L., Des Moines
Redmond, James J., Cedar Rapids
Redmond, Thomas M., Monticello (L.M.)
Reed, Paul A., Iowa City (L.M.)
Reed, Robert J., Des Moines
Reeder, James E., Sioux City
Reeder, James E., Jr., Sioux City
Reedholm, Edwin A., Grundy Center
Reimers, Robert S., Fort Madison
Rembolt, Raymond R., Iowa City
Rence, William G., Mason City
Render, Norman D., Norfolk, Nebraska
Reuber, Roy N., Mason City
Reuling, Frank H., Waterloo
Reynolds, Albert C., Des Moines (L.M.)
Rhodes, John M., Pocahontas
Rice, Floyd W., Des Moines (L.M.)
Richardson, Francis H., Council Bluffs
Richey, Granville L., Centerville
Richmond, Arthur C., Fort Madison
Richmond, Frank R., Fort Madison
Richmond, Frank R., Jr., Fort Madison
Richmond, Paul C., New Hampton
Richter, Harold J., Albia
Ridenour, Edward J., Dunkerton
Ridenour, Joseph E., Waterloo (L.M.)
Rider, Harmon E., Sioux City
Riegelman, Ralph H., Des Moines
Riehle, Robert C., Denison
Rieniets, John H., Cedar Rapids
Riggert, Leonard O., Clinton
Rimel, George W., Bedford
Rindskopf, Wallace, Des Moines
Ringena, Engelke J., Brooklyn
Rinker, George E., Oto (L.M.)
Ritter, Eugene F., Centerville
Rizzo, Frank M., Sibley
Robb, James B., College Park, Maryland (L.M.)
Robb, William J., Cedar Rapids
Roberts, Charles R., Dysart
Roberts, F. LeRoy, Corona, California (L.M.)
Roberts, Francis M., Knoxville (L.M.)
Roberts, Justus B., Ottumwa
Robertson, Treadwell A., West Liberty
Robinson, Ray G., State Center
Robinson, Robert E., Waverly (L.M.)
Robinson, Van C., Des Moines
Rock, J. Gordon, Davenport
Rock, John E., Davenport
Rockwell, Maryelda, Clinton
Rodabaugh, Kenneth D., Tabor
Rodawig, Don F., Spirit Lake
Roddy, Harold J., Mason City
Rodemeyer, Frederick H., Sheffield (L.M.)
Rogers, Claude B., Earlville (L.M.)
★Rogers, Edward A., Jr., Seattle, Washington
Rohlf, Edward L., Jr., Waterloo
Rohrbacher, William M., Iowa City
Rohwer, Roland T., Sioux City
Rolfs, Floyd O., Parkersburg
Rolfs, Fred A., Aplington
Romero, José M., Des Moines
Rominger, Clark R., Waukon
Rominger, Clark W., Waukon
Rose, Alvin A., Story City
Rose, Joseph E., Grundy Center
Rosebrook, Lee E., Ames
Rosendorff, Charlotte, Davenport
Ross, Arthur J., Jr., Perry
Rost, Glenn S., Lake City
Rotkow, Maurice J., Des Moines
Roudybush, William B., Muscatine
Roules, J. Frederic, Mediapolis
Rowat, Harry L., Des Moines (L.M.)
Rowley, Robert D., Iowa City
Rowney, George W., Sioux City
Royal, Lester A., West Liberty
Royal, Malcolm A., Des Moines (L.M.)
Rudersdorf, Howard E., Sioux City
Ruliffson, Howard D., Storm Lake
Ruml, Wentzle, Cedar Rapids (L.M.)
Rusk, Ross P., Dubuque
Russell, Elwood P., Burlington
Russell, John, Santa Barbara, California (L.M.)
Russell, Ralph E., Waterloo
Rust, Emery A., Webb (L.M.)
Ruth, Verl A., Des Moines
Ryan, Allen J., Harlan
Ryan, Charles M., Sioux City
Ryan, Cyril J., Clinton
Ryan, Martin J., Sioux City
Ryan, Robert A., Fairfield

Saar, Jesse L., Donnellson
Saar, Jesse L., Jr., Burlington
Saar, John W., Keokuk
★Sacco, Severino O., Phoenixville, Pennsylvania
*Safley, Agnes I., Cedar Rapids (L.M.)
Safley, Max W., Forest City
Sahl, Jens, Jr., Iowa City
Sahs, Adolph L., Iowa City
St. Onge, Joseph A., Sioux City
Samberg, Harry H., Des Moines
Sampson, Carl E., Creston
Sampson, Frank E., Creston (L.M.)
Sams, Joseph H., Clarion (L.M.)
Sanders, George E., Miami, Florida (L.M.)
Sanders, Matthew G., Fort Dodge
Sanders, William E., Tucson, Arizona (L.M.)
Sands, Sidney L., Des Moines
Sands, W. Wayne, Iowa City
Sarff, Floyd G., Logan
Sartor, Guido J., Mason City
Sartor, Pierre, Titonka (L.M.)
Saskill, Richard K., Ottumwa
Satrang, Geraldine, Sioux City
Sattler, Dwight G., Kalona
Sauer, Harold E., Marshalltown
Saul, F. William, Mason City
Sautter, Robert A., Mount Vernon
Sawyer, Grace M., Woodward
Scales, E. Thomas, Des Moines
Scanlan, George C., De Witt
Scanlon, George H., Iowa City
Schacht, Norman A., Fort Dodge
Schaefer, Paul H., Cedar Rapids (L.M.)
Schaeferle, Lawrence G., Gladbrook
Schaeferle, Martin J., Eagle Grove
Schafer, Leander H., De Witt
Schanche, Arthur N., Ames
Scharle, Theodore, Dubuque
Scheffel, Melvin L., Malvern
Scheibe, John R., Bloomfield
Scheldrup, Eugene W., Iowa City
Schiff, Joseph, Spokane, Washington
Schill, Austin E., Des Moines
Schissel, Donald, Des Moines
Schlaser, Verne L., Des Moines
Schlichtemeier, Ellis O., Spencer
Schmitt, Donald D., Kimballton
Schnug, George E., Dows
Schoonover, Richard, Bloomfield
Schrier, Harold L., Fort Madison
Schrock, Christian E., Iowa City
Schroeder, Adrian J., Marshalltown
Schroeder, Frank N., Ryan
Schroeder, Leslie V., Walcott
Schropp, Rutledge C., Des Moines
Schrup, Joseph H., Dubuque (L.M.)
Schueller, Charles J., Dubuque
Schultz, Ivan T., Humboldt
Schultz, Marvin H., Iowa City
Schultz, Nelle E. T., Humboldt
Schupp, Joseph G., Jr., Des Moines
Schutter, John M., Algona
Schwartz, Charles, Cedar Rapids
Schwartz, John W., Sioux City
Sciortino, Aileen E. M., Council Bluffs
Sciortino, Arthur L., Council Bluffs
Sciscent, Verdi I., Waterloo
Scott, Phillip A., Spirit Lake
Scott, Sophie Hinze, Des Moines (L.M.)
Scoville, Victor T., Sioux City
Seaman, Charles L., Cherokee
★Sear, John, Denver, Colorado
★Sears, Richard H., Houston, Texas
Sebek, Roy O., Fort Dodge
Sedlacek, Leo B., Cedar Rapids
Seebohm, Paul M., Iowa City
Seely, Harmon D., Cherokee
Seibert, Cecil W., Waterloo
Seidler, William A., Jr., Jamaica
Sellards, Joseph W., Clarinda (L.M.)
Sells, Benjamin B., Independence (L.M.)
Selman, Ralph J., Ottumwa (A.M.)
Selo, Rudolph A., Council Bluffs
Senska, Frank R., Iowa City
Senty, Elmer G., Davenport
Severson, George J., Slater
★Severson, Wayne L., Coraopolis, Pennsylvania
Shafer, Arthur W., Davenport
Shane, Robert S., Pilot Mound
Shank, Raymond A., Cedar Rapids
Shannon, Edwin R., Waterloo (L.M.)
Shapiro, Seymour W., Des Moines
Sharpe, Donald C., Dubuque
Shaw, David F., Britt
Shaw, Robert E., Waverly
Shea, Thomas E., Storm Lake
Sheeler, Ivan H., Des Moines
Sheets, Raymond F., Iowa City
Shelton, Charles D., Bloomfield (L.M.)
Shepherd, Loyd K., Des Moines
Sherman, Richard C., Los Angeles (L.M.)
Sherman, Robert B., Ackley
Shiffler, H. Kirby, Des Moines
Shinkle, William C., Des Moines
Shohet, Isaac H., Bode
Shonka, Thomas E., Malvern
Shope, Charles D., Greenfield
Shorey, Joseph R., Davenport
Shulkin, Sam H., Sioux City
Shulman, Herbert, Waterloo
Shurts, John J., Eldora
Sibley, Edward H., Sioux City
Sibley, John A., Ames
Simpson, Roger A., Iowa City
Simmons, Ralph R., Des Moines
Singer, John R., Newton
Singer, Siegmund F., Ottumwa

Sinn, Irvin J., Williamsburg
Sinning, Augustus, Iowa City (L.M.)
Sinning, John E., Marshalltown
Skallerup, Glenn M., Red Oak
Skelley, Paul B., Jr., Dubuque
Skinner, Homer L., Des Moines
Skultety, F. Miles, Iowa City
Skultety, James A., Des Moines
★Slate, William G., New York, New York
Sloan, Fred R., Waterloo
Sloan, Frederic J., Cedar Rapids
Smazal, Stanley F., Davenport
Smead, Howard H., Des Moines
Smead, Leslie L., Newton (L.M.)
Smiley, George F., Ottumwa
Smiley, Ralph E., Mason City
Smith, Andrew D., Primghar
Smith, Anthony P., Hampton
Smith, Arthur F., Manning
Smith, Cecil R., Wyoming
Smith, Clyde J., Ringsted
Smith, Elmer M., Eagle Grove
Smith, Eugene, Waterloo
Smith, Herman J., Des Moines
Smith, Howard W., Woodward
Smith, Jason Ned, Iowa City
Smith, Jason Ned, Jr., Detroit, Michigan
Smith, John E., Clarence (L.M.)
Smith, John M., Iowa City
Smith, Lawrence D., Des Moines
Smith, Richard C., Cedar Rapids
Smith, Richard T., Iowa City
Smith, Richard W., Clarion
Smith, Robert A., Albia
Smith, Robert J., Stacyville
Smith, Robert T., Granger
Smith, Rodger B., Mason City
Smith, S. Rodmond, Red Oak
Smith, Sidney A., Oskaloosa
Smrha, James A., Cedar Rapids
Smythe, Arnold M., Des Moines
Snyder, Gregg M., Ottumwa
Snyder, Raleigh R., Des Moines
Sohm, Herbert A., Des Moines
Sokol, Charles R., State Center
Sola, Olav M., Des Moines
Sones, Clement A., Des Moines
Soper, Robert T., Iowa City
Sorensen, Elmer M., Red Oak
Sorenson, Aral C., Davenport
Sorenson, Kermit R., Sabula
Southwick, William W., Marshalltown
Spain, Robert T., Conrad (L.M.)
Sparks, Francis R., Waverly (L.M.)
Spear, William, Oakdale
Spearing, Joseph H., Harlan
Speidel, Glenn P., Hartford, Connecticut
Spellman, George G., Sioux City
Spellman, Martin T., Cedar Rapids
Spencer, Philip L., Essex
Sperow, Wendell B., Nevada
Sperry, Frederick S., Clarinda
Spevak, Jack J., Des Moines
Spielhagen, Guenther F., Iowa City
Spilman, Harold A., Ottumwa
Spohnheimer, L. Nelson, Donnellson
Springer, Floyd A., Des Moines
Sproul, William M., Des Moines
Stalford, John H., Los Angeles (L.M.)
Stam, Nicholas C., Mason City
Stamler, Frederic W., Iowa City
Standefer, Joe M., Des Moines
Standeven, James W., Oakland
Stansbury, John E., Cedar Rapids
Stark, Callistus H., Cedar Rapids
Stark, Frederick M., Sioux City
Starr, Charles F., Mason City (L.M.)
Starry, Allen C., Sioux City (A.M.)
Statton, Roy F., Iowa City
Stauch, Martin O., Moorhead
Stauch, Omar A., Sioux City
Staudt, Alfred J., Waterloo
Steenrod, Emerson J., Iowa Falls
Steffens, Lincoln F., Dubuque
Steffey, Fred L., Chicago, Illinois
Stegmaier, Otto C., Davenport
Stegman, Jacob J., Marshalltown
Steindler, Arthur, Iowa City (L.M.)
Stephen, Paul, Cedar Rapids
Stephen, Raymond J., Cedar Rapids
Stepp, James K., Manchester
Sternagel, Fred, West Des Moines
Sternberg, Walter A., Corona Del Mar, California (L.M.)
Sternhill, Isaac, Council Bluffs
Stevens, Clark W., Dubuque
Steves, Richard J., Des Moines
Stewart, John H., Ottumwa
Stewart, John K., Clinton
Stickler, Robert B., Des Moines
Stimac, Emil M., Davenport
Stinson, Alice C., Estherville (L.M.)
Stitt, Paul L., Fort Dodge
Stoakes, Charles S., Lime Springs (L.M.)
Stober, Raymond W., Charles City
Stojkovic, Joseph P., Iowa City
Stolley, J. George, Moville (L.M.)
Storck, Robert D., Dubuque
Straub, Joseph J., Dubuque
Straumanis, Janis, Solon
Strawn, John T., Vinton (L.M.)
Stroy, Herbert E., Osceola
Stuart, Percy E., Nashua (L.M.)
Stueland, Alvin J. R., Mason City
Stumme, Ernest H., Denver
★Stutsman, Robert E., Miami, Florida
Suchomel, Thomas F., Cedar Rapids
Sullivan, Daniel J., Sutherland
Sullivan, John J., Davenport
Sullivan, John V., Carroll
Sulzbach, John Francis, Burlington
Summers, Thomas B., Iowa City
Sun, Kuei shu, Ames
Sunderbruch, John H., Davenport
Sutton, Gerald H., Jr., Boone
Svendsen, Reinert N., Keokuk
Swann, Raymond O., Iowa City
★Swanson, Eric M., Omaha, Nebraska
Swanson, Gerald W., Lamoni
Swanson, Leslie W., Mason City
Swayze, V. Warren, Muscatine
Sweeney, Lloyd J., Sanborn
Swift, Frederick J., Jr., Maquoketa
Swift, Frederick J., Sr., Maquoketa (L.M.)
Sybenga, Jacob J., Pella
Synhorst, John B., Des Moines (A.M.)
Sywassink, George A., Muscatine

Taber, Rodman E., Iowa City
Tabor, James R., Marion
Tait, John H., Des Moines
Tamisiea, Francis S., Missouri Valley
Taylor, Charles B., Claremont, California (L.M.)
Taylor, Charles I., Pomeroy (L.M.)
Taylor, Donald E., Stuart
Taylor, James H., Clinton
Taylor, Lawrence A., Ottumwa
Taylor, Maude, Ottumwa
Taylor, Robert S., Davenport
Taylor, Wendel W., Sheffield
Teigland, Joel D., Des Moines
Tempel, Paul F., Charles City
Teufel, John C., Davenport (L.M.)
Thaler, David, Cedar Rapids
Tharp, Herbert M., Monroe
Thatcher, Wilbur C., Fort Dodge
Theilen, Ernest O., Iowa City
Thein, Garfield M., Oelwein
Theisen, Roy I., Dubuque
Thielen, Edward W., Waterloo
Thielen, John B., Fonda
Thoman, William S., Sioux City
Thomas, Clifford W., Mason City
Thomas, Clyde E., Keystone
Thomas, Colin G., Monticello
★Thomas, Gary L., Randolph AFB, Texas
Thomas, James H., Sibley
Thomas, James R., Evansdale
Thomas, William H., McGregor (L.M.)
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Thompson, Howard E., Dubuque (L.M.)
Thompson, James R., Waterloo (L.M.)
★Thompson, James W., Ames
Thompson, Kenneth L., Oakland
Thompson, Virginia D., Des Moines
Thomsen, John G., Des Moines
Thomsen, Thomas F., Red Oak (L.M.)
Thorburn, Oral L., Ames
Thornton, F. Eberle, Des Moines
Thornton, John W., Lansing
Thornton, Thomas F., Waterloo
Thornton, Thomas F., Jr., Waterloo
Thorson, John A., Dubuque
Throckmorton, J. Fred, Des Moines
Throckmorton, Jeannette D., Des Moines (L.M.)
Throckmorton, Scott L., Chariton
Throckmorton, Tom B., Des Moines
Throckmorton, Tom D., Des Moines
Tice, Claude B., Mason City (L.M.)
Tice, George I., Mason City
Tice, W. Arnold, Waterloo
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Tierney, Edmund J., Sioux City
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Todd, Robert L., Burlington
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Towle, Robert A., Davenport
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Trier, Paul J., Des Moines
★Trosman, Harry, Oceanside, California
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Troxell, Millard A., Cedar Rapids
Trueblood, Clare A., Indianola
Trumpe, William D., Cedar Rapids
Trunnell, Thomas L., Waterloo
Tucker, Francis C., Cedar Rapids
Turner, George E., West Des Moines
Turner, Howard V., Des Moines
Turner, Rosalie C., Nashua
Turner, William R., Fort Dodge
Tyler, Donald E., Fort Dodge
Tyrrell, John E., Manchester

Uchiyama, John K., Des Moines
Undem, Dale W., Louisville, Kentucky
Underriner, Robert E., Holstein
Updegraff, Charles L., Boone
Updegraff, Robert R., Des Moines
Updegraff, Thomas R., Waterloo
Utne, John R., Mason City
Utterback, Robert A., Iowa City

Valiquette, Frank G., Sioux City
Van Bemmel, Piet F., Ames
Van Camp, Thomas H., Breda
Vander Meulen, Herman C., Pella
Vander Stoep, Harry L., Le Mars
Van Eldik, Dick L., Orange City
Van Epps, Clarence E., Iowa City (L.M.)
Van Epps, Eugene F., Iowa City
Vangsness, Ingmar U. C., Sioux City
Van Metre, Paul W., Rockwell City
Van Natta, Carlton W., West Des Moines
Van Patten, Ernest M., Fort Dodge
Van Tiger, William H., Eldora
Van Werden, Benjamin D., Keokuk
Van Wetzinga, Russell J., Bettendorf
Van Zante, Peter, Pella
Vaubel, Ellis K., Estherville
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Veltman, John F., Winterset
Vercio, Raymond A., Burlington
Vespa, Raymond, Des Moines
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von Lackum, John K., Cedar Rapids
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Wagner, Donald J., Sioux City
Wagner, Eugene C., Plainfield
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Wainwright, Max T., Sioux City
Walker, Charles C., Des Moines
Walker, Glenn L., Burlington
Walker, Henry L., Cedar Rapids (L.M.)
Walker, Herbert P., Clarion (L.M.)
Walker, John R., Waterloo
Walker, Thomas G., Riceville
Walker, Thomas S., Riceville (L.M.)
Wall, David, Ames
Wall, John M., Boone
Wallace, Leo F., Burlington
Walliker, Wilbur M., Clinton (L.M.)
Walsh, William E., Hawkeye
Walston, Edwin B., Des Moines (L.M.)
Walston, James H., Sioux City
Walter, Dennis J., Des Moines
Walton, Seth G., Hampton
Walz, Donald V., Iowa City
Wanamaker, Ambrose R., Hamburg
Ward, Donovan F., Dubuque
Ward, Loraine W., Oelwein
Ward, Thomas L., Arnolds Park
Warden, Duane D., Council Bluffs

Ware, John, Mount Vernon
Ware, Stephen C., Iowa City
Ware, Thomas A., Des Moines
Warner, Emory D., Iowa City
Warner, Paul L., Wesley
Wasser, David A., Iowa City
Waterbury, Charles A., Jr., Waterloo
Watson, Charles F., Fairfield
Watson, Elbert J., Diagonal (L.M.)
Watters, George H., Des Moines
Watts, A. Fred, Creston
Watts, Campbell F., Cedar Rapids
Watts, Clyde F., Marengo
Weaver, David F., Davenport
Weaver, Kenneth H., Union
Weaver, Ralph L., Cumberland
Webb, Daniel R., Oakdale
Weber, Frank N., Walnut
Weber, Leslie E., Wapello
Weber, Leslie E., Jr., Wapello
Weber, William W., Pomeroy
Weems, Nev E., Paullina
Weih, Elmer P., Clinton
Weikel, Vernon E., Sioux City
Weinberg, Harry B., Davenport
Weingart, Julius S., Des Moines
Weir, Edward C., Council Bluffs (L.M.)
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Weland, Regis E., Cedar Rapids
Wellman, Thomas G., Clinton
Wells, Rodney C., Marshalltown
Wentworth, Laydon S., Marble Rock
Wentzien, Albert J., Tama
Werner, Harold T., Fort Madison
Wessels, William R., Marshalltown
West, Alroy G., Council Bluffs
West, Norman D., Avoca
West, Walter E., Centerville (L.M.)
Westly, G. Travis, Mason City
Westly, J. Stephen, Mason City
Weston, B. Raymond, Mason City
Weston, Robert A., Des Moines (L.M.)
Wetrich, Max F., Grand Junction
Weyhrauch, Robert A., Waterloo
Weyer, Joseph J., Fort Dodge
Wheeler, Richard A., Des Moines
Whitaker, Ben T., Boone
White, George H., Des Moines
Whitehouse, William N., Ottumwa
Whitley, Ralph L., Osage (L.M.)
Whitmer, Lysle H., Muscatine
Whitmire, James E., Sumner
Whitmire, William L., Sumner (L.M.)
Wichern, Homer E., Des Moines
Wicklund, Maurice M., Waterloo
Wicks, Ralph L., Boone
Wickstrum, Arthur P., Iowa City
Widmer, James G., Wayland
Widmer, Reuben B., Winfield
Wiedemeier, Joseph L., Sioux City
Wilcox, Delano, Malcom (L.M.)
Wilcox, Dwain E., Atlantic
Wilcox, Edgar B., Oskaloosa
Wilcox, Keith E., Muscatine
Wilcox, Robert A., Iowa City
Wildberger, William C., Perry
Wilhelmi, Raymond W., Sioux City
Wilke, Frank A., Perry
Wilkinson, Levi J., Marshalltown
Willett, Wilton J., Manchester
Williams, Frank S., Villisca (L.M.)
Williams, Lawrence B., Maquoketa
Williams, Nathan B., Belle Plaine
Wilson, Charles R., Manson
Wilson, F. Dale, Davenport
Wilson, Frederic L., Sioux City
Wilson, Frederic W., Sioux City
Wilson, Robert C., Missouri Valley
Winder, Clifford D., Waterloo
Winninger, Louis T., Waterloo
★Winter, F., Donald, Seattle, Washington
Wirtz, Dwight C., Des Moines
Wise, Arthur C., Iowa City
Wise, James H., Cherokee
Wolcott, Ruth F., Spirit Lake
Wolf, Henry H., Elgin
Wolf, William J., West Union
Wolfe, Otis D., Marshalltown
Wolfe, Russell M., Marshalltown
Wolfe, Wilson C., Ottumwa
Wolfson, Harold, Kingsley
Wolpert, Paul L., Onawa
Wolters, Donald E., Estherville
Wolverton, Benjamin F., Cedar Rapids
Wood, John R., Wadena
Woodard, Floyd O., Des Moines
Woodard, Ralph E., Iowa City
Woodbridge, James W., Madera, California (L.M.)
Woodburn, Chester C., Jr., Des Moines
Woodhouse, George R., Vinton
Woodhouse, Keith W., Cedar Rapids
Woods, Andrew H., Wellsley Hills, Massachusetts (L.M.)
Woodward, Lee R., Mason City
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Wooters, Richard C., Des Moines
★Workman, Robert D., Washington, D. C.
Wormhoudt, Herbert L., Ottumwa
Worrell, James T., Keosauqua
Wray, Clarence M., Iowa Falls (L.M.)
Wray, Robert M., Cedar Rapids
Wright, David W., Decorah
Wright, Thomas D., Newton
*Wright, Walter N., Rose Hill (L.M.)
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Wurtzer, Ezra L., Clear Lake
Wyatt, George M., Iowa City
Wykoff, Sarah U., Des Moines

Yamamoto, Masa, Iowa City
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Yetter, William L., Iowa City
Yocom, Albert L., Jr., Chariton
York, Dalla L., Villisca
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Young, George G., Des Moines
Young, Henry C., Bloomfield (L.M.)
Young, Howard O., Marion
Young, James J., Clinton
Young, Richard A., Clarion
Yugend, Sidney F., Indianola

Zabloudil, Warren C., Preston
Zager, Lewis L., Waterloo
Zehr, Earl E., Guttenberg
Zibilich, George J., Lone Tree
Ziffren, Sidney E., Iowa City
Zimmerer, Edmund G., Des Moines
Zimmerman, George R., Iowa City
Zoeckler, Samuel J., Des Moines
Zuercher, Arlo R., Cedar Rapids
Zukerman, Cecil M., Davenport

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* Deceased
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(A.M.) Associate Member

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Barbour, Howard W.....Mason City
Barr, Guy E.....Sioux City
Barton, Edwin G.....Ottumwa
Beardsley, David E.....Cedar Rapids
Beatty, Alexander S.....Creston
Bell, Edward P.....Pleasantville
Bierring, Walter L.....Des Moines
Bigelow, Charles T.....LaGrange, Ill.
Binford, William S.....Davenport
Birney, Cleanthus E.....Estherville
Boice, Clyde A.....Washington
Bowers, Arthur S.....Orient
Bowie, Louis L.....Marshalltown
Boyer, Howard C.....Council Bluffs
Bruce, James H.....Fort Dodge
Bullock, William E.....Lake Park
Burcham, Thomas A.....Des Moines
Cantwell, John D.....Davenport
Carlile, Amos W.....Manning
Carson, Andros.....Des Moines
Chase, William B., Sr.....Des Moines
Chittum, John H.....Wapello
Clasen, Henry W.....Littleton, Colorado
Cole, Elmer J.....Woodbine
Conmey, Roy M.....Sergeant Bluff
Cooper, Jay C.....Villisca
Crain, Lewis F.....Deep River
Crain, Mattie M.....Deep River
Cretzmeyer, Charles H.....Algona
Crew, Arthur E.....Marion
Dean, William F.....Osceola
Decker, Jay C.....Sioux City
Dingman, Marshall E.....Urbana
Downing, Leroy M.....Cedar Rapids
Dulin, Tarana J. G.....Iowa City
Dunn, James.....Davenport
Ellyson, Charles W.....Waterloo
Foulk, Frank E.....Backus, Minn.
Fullerton, Oscar L.....Redding
Gaard, Rasmus R.....Radcliffe
Gardner, John R.....Lisbon
Gearhart, George W.....Springville
Gillmor, Benjamin F.....Red Oak
Givens, H. Frank.....West Bend
Gray, Henry A.....Keokuk
Gray, John F.....Melcher
Griffin, Frank L.....Baldwin
Gutch, Thomas E.....Albia

Harkness, Gordon F. Davenport
Harrington, Burton Cedar Rapids
Harris, Grove W. Marshalltown
Heady, Conda C. C. Bloomfield
Heald, Clarence L. Sigourney
Heathman, Frank E. Pocahontas
Henry, Clyde A. Farson
Hoffman, Paul M. Tipton
Hollis, Edward L. Marengo
Houser, Cass T. Cedar Rapids
Householder, Harold A. Winthrop
Hudek, Joseph W. Garnavillo
Jackson, James M. Jefferson
Jaenicke, Kurt Clinton
James, Peter E. Audubon
James, Lora D. Fairfield
Janse, Phillip V. Algona
Jarvis, Harry D. Chariton
Jastram, Alfred H. Remsen
Jenkins, George A. Albia
Johnson, Amos F. Manilla
Jones, Charles L. Gilmore City
Jones, Harry J. Cedar Rapids
Kahler, Hugo V. Reinbeck
Keech, Roy F. Cedar Rapids
Kennedy, Elizabeth S. Oelwein
Kern, Lester C. Waverly
Keyser, Ralph E. Marshalltown
Kisor, Frank H. Mechanicsville
Knox, James M. Cedar Rapids
Kuhl, Augustus B. Davenport
Kulp, Raymond R. Davenport
Kyle, William S. Washington
Lincoln, Simon E. Des Moines
Losh, Clifford W. Des Moines
Luke, Edward Coin
Lundvick, Arthur W. Gowrie
McBurney, George F. Belmond
McDowall, Gilbert T. Gladbrook
McDowell, William O. Grundy Center
McLaughlin, Charles W. Washington
Marble, Pearl L. Liscomb
Maresh, George W. Denver, Colorado
Mason, Stella M. Mason City
Merkel, Arthur E. Des Moines
Merritt, Arthur M. Des Moines
Meyers, Frank W. Dubuque
Minassian, Harootune A. Des Moines
Morrison, John W. Alta
Morse, Charles H. Eagle Grove
Mott, William H. Farmington
Murchison, Kenneth Sidney
Murray, Frederick G. Cedar Rapids
Nash, Edwin A. Ottumwa
Neal, Emma J. Cedar Rapids
Niblock, George F. Homewood, Ill.
Nicoll, David T. Mitchellville
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O'Donoghue, James H. Storm Lake
Oggel, Herman D. Maurice
Olsen, Martin I. Des Moines
Pace, Arthur A. Toledo
Pagelsen, Otto H. Des Moines
Parker, Robert L. Des Moines
Patterson, John N. Burlington
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Phillips, Albin B. Clear Lake
Posner, Edward R. Des Moines
Price, Alfred S. Des Moines
Quire, Frank E. Lynnville
Rambo, David T. Ottumwa
Rankin, William Keokuk
Raw, Elmer J. Pierson
Redmond, Thomas M. Monticello
Rinker, George E. Oto
Robb, James B. Chariton
Robinson, Robert E. Waverly
Rodemeyer, Frederick H. Sheffield
Rogers, Claude B. Earlville
Royal, Malcolm A. Des Moines
Ruml, Wentzle Cedar Rapids
Rust, Emery A. Webb
Sams, Joseph H. Clarion
Sanders, William E. Tucson, Ariz.
Scott, Sophie H. Des Moines
Sellards, Joseph W. Clarinda
Sells, Benjamin B. Independence
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Sinning, Augustus Iowa City
Smead, Leslie L. Newton
Smith, John E. Clarence
Spain, Robert T. Conrad
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Stinson, Alice C. Estherville
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Stuart, Percy E. Nashua
Teufel, John C. Davenport
Thomas, William H. McGregor
Thompson, James R. Waterloo
Tinsman, Eugene S. Orient
Van Epps, Clarence E. Iowa City
Vorpahl, Rudolph A. Cedar Rapids
Walker, Harry L. Cedar Rapids
Walliker, Wilbur M. Clinton
Walsh, Thomas N. Hawkeye
Walston, Edwin B. Des Moines
Watson, Elbert J. Diagonal
Weir, Edward C. Council Bluffs
Westenberger, Joseph C. St. Ansgar
Weston, Robert A. Des Moines
Whitley, Ralph L. Osage
Whitmire, William L. Sumner
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Wray, Clarence M. Iowa Falls
Young, Ernest R. Dubuque
Young, Henry C. Bloomfield

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Anderson, Mrs. W. D., Des Moines
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Baker, Mrs. J. N., Cedar Falls
Baker, Mrs. W. E., Des Moines
Bakody, Mrs. J. T., Des Moines
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Brown, Mrs. J. M., Sioux City
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Butts, Mrs. Harold, Waterloo
Buxton, Mrs. O. C., Jr., Webster City

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Chase, Mrs. W. B., Jr., Des Moines
Chase, Mrs. W. E., Rippey
Chesnut, Mrs. P. F., Winterset
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Christiansen, Mrs. C. C., Grand Mound
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Clark, Mrs. G. H., Oskaloosa
Clark, Mrs. J. P., Estherville
Clark, Mrs. R. E., Manchester
Cochran, Mrs. A. M., Perry
Cody, Mrs. W. E., Sioux City
Coffey, Mrs. J. L., Emmetsburg
Coffin, Mrs. L. A., Farmington
Coffman, Mrs. E. W., Dubuque
Cogley, Mrs. J. P., Council Bluffs
Cohen, Mrs. S. A., Council Bluffs
Coleman, Mrs. F. C., Des Moines
Collignon, Mrs. U. J., Council Bluffs
Collins, Mrs. L. E., Sioux City
Collison, Mrs. R. M., Oskaloosa
Conklin, Mrs. E. V., Dubuque
Conlon, Mrs. J. B., Council Bluffs
Connelly, Mrs. E. J., Dubuque
Conzett, Mrs. D. C., Dubuque
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Corn, Mrs. H. H., Des Moines
Cornish, Mrs. J. A., Storm Lake
Corton, Mrs. R. V., Waterloo
Coughlan, Mrs. C. H., Fort Dodge
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Crandall, Mrs. J. S., Marshalltown
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Crawford, Mrs. W. M., Burlington
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Croxdale, Mrs. E. L., Villisca
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Dawson, Mrs. E. B., Fort Dodge
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Decker, Mrs. J. C., Sioux City
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Harris, Mrs. R. R., Dubuque
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Hayne, Mrs. W. W., Des Moines
Heeren, Mrs. R. D., Des Moines
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Heileman, Mrs. R. D., Sioux City
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Jenkins, Mrs. H. F., Ogden
Jenks, Mrs. A. L., Des Moines
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Jensen, Mrs. L. E., Audubon
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Johnson, Mrs. G. R., Ottumwa
Johnson, Mrs. H. A., Atlantic
Johnson, Mrs. N. M., Clarinda
Johnson, Mrs. R. M., Ft. Des Moines
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Johnston, Mrs. G. B., Estherville
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Juel, Mrs. E. M., Atlantic

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Keen, Mrs. B. E., Des Moines
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Kelly, Mrs. J. F., Sioux City
Kelly, Mrs. W. J., Dubuque
Keohen, Mrs. G. F., Dubuque
Kern, Mrs. G. A , Des Moines
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Kersten, Mrs. H. H., Fort Dodge
Kersten, Mrs. J. R., Fort Dodge
Kersten, Mrs. P. M., Fort Dodge
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King, Mrs. D. H., Spencer
King Mrs. R. C., Clinton
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Klocksiem, Mrs. H. L., Des Moines
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Knutsen, Mrs. Arne, Sioux City
Koelling, Mrs. L. H., Newton
Krettek, Mrs. J. E., Council Bluffs
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Kruml, Mrs. J. G., Council Bluffs
Kuehn, Mrs. W. O., Clarinda
Kuhn, Mrs. M. A., Waterloo

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Larsen, Mrs. F. S., Fort Dodge
Larsen, Mrs. H. T., Fort Dodge
Larsen, Mrs. L. V., Harlan
Larsen, Mrs. M. O., Hawarden
Larson, Mrs. L. E., Decorah
LaRue, Mrs. J. L., Anita
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Laube, Mrs. P. J., Dubuque
Lavender, Mrs. J. G., George
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Lee, Mrs. W. R., Burlington
Leffert, Mrs. F. B., Centerville
Leighton, Mrs. L. L. Fort Dodge
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Limburg, Mrs. J. I., Jr., Jefferson
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Lister, Mrs. K. E., Ottumwa
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McClurg, Mrs. F. H, Fairfield
McCool, Mrs. R. F., Clarion
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McGahey, Mrs. W. B., Webster City
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McGeehon, Mrs. R. C., Indianola
McGilvra, Mrs. A. L., Sioux Center
McGuire, Mrs. R. A., Fairfield
McIntosh, Mrs. P. D., Ottumwa
McKay, Mrs. R. V., Dubuque
McKean, Mrs. F. F., Allison
McKitterick, Mrs. J. C., Burlington
McMillan, Mrs. G. J., Ft. Madison
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McNamara, Mrs. R. J., Dubuque
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Marble, Mrs. W. P., Marshalltown
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Marquis, Mrs. George, Des Moines
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Martini, Mrs. H. F., Council Bluffs
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Mathiasen, Mrs. H. W., Council Bluffs
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Merillat, Mrs. H. C., Des Moines
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Meyer, Mrs. R. J., Perry
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Miller, Mrs. J. J., Ackley
Miller, Mrs, Keith, Agency
Miller, Mrs. R. C., Waterloo
Miller, Mrs. R. L., Waterloo
Minassian, Mrs. T. A., Des Moines
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Mitchell, Mrs. Richard, Waterloo
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Moe, Mrs. R. H., Griswold
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Moermond, Mrs. J. O., Buffalo Center
Mol, Mrs. H. L., Grundy Center
Monnig, Mrs. P. J., Sioux City
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Moore, Mrs. Fred, Des Moines
Moore, Mrs. R. M., Des Moines
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Nelson, Mrs. P. O., Emmetsburg
Nelson, Mrs. R. J., Clinton
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Nielsen, Mrs. R. F., Cedar Falls
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Olsen, Mrs. R. E., Milton
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Osborn, Mrs. C. R., Dexter
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Osten, Mrs. B. H., Northwood
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O'Toole, Mrs. R. L., Waterloo
Otto, Mrs. P. C., Fort Dodge
Owca, Mrs. A. S., Centerville

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Perley, Mrs. A. E., Waterloo
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Petersen, Mrs. M. T., Atlantic
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Petersen, Mrs. V. W., Clinton
Peterson, Mrs. J. C., Jr., Hartley
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Pfohl, Mrs. A. C., Dubuque
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Phelps, Mrs. G. D., Waterloo
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Phillips, Mrs. C. P., Muscatine
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Poore, Mrs. S. D., Villisca
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Porter, Mrs. R. C., Des Moines
Porter, Mrs. R. J., Des Moines
Posner, Mrs. E. R., Des Moines
Powell, Mrs. L. D., Des Moines
Powell, Mrs. R. A., Shenandoah
Powers, Mrs. G. H., Shenandoah
Powers, Mrs. J. L., Estherville
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Robert, Mrs. R. L., Waterloo
Roberts, Mrs. J. B., Ottumwa
Robinson, Mrs. R. G., State Center
Rodawig, Mrs. D. F., Spirit Lake
Rogers, Mrs. C. B, Earlville
Rohwer, Mrs R. T., Sioux City
Rominger, Mrs. C. R., Waukon
Rose, Mrs. J. E., Grundy Center
Ross, Mrs. A. J., Perry
Rotkow, Mrs. M. J., Des Moines
Roules, Mrs. J. F., Mediapolis
Rowney, Mrs. G. W., Sioux City
Royal, Mrs. M. A., Des Moines
Rudersdorf, Mrs. Howard, Sioux City
Ruliffson, Mrs. H. D., Storm Lake
Rusk, Mrs. R. P., Dubuque
Russell, Mrs. E. P., Burlington
Rust, Mrs. E. A., Webb
Ryan, Mrs. A. J., Harlan
Ryan, Mrs. C. J., Clinton
Ryan, Mrs. C. M., Sioux City
Ryan, Mrs. M. J., Sioux City
Ryan, Mrs. R. A., Fairfield

Saar, Mrs. J. L., Jr., Burlington
Safley, Mrs. M. W., Forest City
Sanders, Mrs. M. G., Fort Dodge
Saskill, Mrs. Richard, Ottumwa
Sauer, Mrs. H. E., Marshalltown
Sayre, Mrs. I. K., St. Charles
Schacht, Mrs. N. A., Fort Dodge
Schaeferle, Mrs. M. J., Eagle Grove
Schafer, Mrs. L. N., DeWitt
Scharle, Mrs. Theodore, Dubuque
Scheffel, Mrs. M. L., Malvern
Scheibe, Mrs. J. R., Bloomfield
Schill, Mrs. A. E., Des Moines
Schlaser, Mrs. V. L., Des Moines
Schlichtemeier, Mrs. E. O., Spencer
Schoonover, Mrs. Richard, Bloomfield
Schroeder, Mrs. A. J., Marshalltown
Schroeder, Mrs. F. N., Ryan
Schropp, Mrs. R. C., Des Moines
Schueller, Mrs. C. J., Dubuque
Schupp, Mrs. J. G., Des Moines
Schwartz, Mrs. John, Sioux City
Sciscent, Mrs. V. I., Waterloo
Scoville, Mrs. V. T., Sioux City
Seabloom, Mrs. J. L., Red Oak
Sebek, Mrs. R. O., Fort Dodge
Sejbert, Mrs. C. W., Waterloo
Seidler, Mrs. W. A., Jamaica
Seidler, Mrs. William, Jr., Jamaica
Selman, Mrs. R. J., Ottumwa
Selo, Mrs. R. A., Council Bluffs

Shane, Mrs. R. S., Pilot Mound
Sharpe, Mrs. D. C., Dubuque
Shaw, Mrs. D. F., Britt
Shea, Mrs. T. E., Storm Lake
Sheeler, Mrs. I. H., Des Moines
Shepherd, Mrs. L. K., Des Moines
Shiffler, Mrs. H. K., Des Moines
Shinkle, Mrs. W. G., Des Moines
Shulkin, Mrs. S. H., Sioux City
Shulman, Mrs. Herbert, Waterloo
Shurts, Mrs. J. J., Eldora
Sibley, Mrs. E. H., Sioux City
Singer, Mrs. J. R., Newton
Singer, Mrs. S. F., Ottumwa
Sinning, Mrs. J. E., Marshalltown
Skallerup, Mrs. G. M., Red Oak
Skelley, Mrs. P. B., Dubuque
Skultety, Mrs. J. A., Des Moines
Sloan, Mrs. F. R., Waterloo
Smead, Mrs. L. L., Newton
Smith, Mrs. C. J., Ringsted
Smith, Mrs. E. E., Waterloo
Smith, Mrs. E. M., Eagle Grove
Smith, Mrs. H. W., Woodward
Smith, Mrs. J. E., Clarence
Smith, Mrs. L. D., Des Moines
Smith, Mrs. R. W., Clarion
Smith, Mrs. R. T., Granger
Smith, Mrs. S. A., Oskaloosa
Smith, Mrs. S. R., Red Oak
Smythe, Mrs. A. M., Des Moines
Snyder, Mrs. Gregg, Ottumwa
Snyder, Mrs. R. R., Des Moines
Sohm, Mrs. H. A., Des Moines
Sokol, Mrs. C. R., State Center
Sones, Mrs. C. A., Des Moincs
Sorensen, Mrs. E. M., Red Oak
Southwick, Mrs. W. W., Marshalltown
Spearing, Mrs. J. H., Harlan
Spellman, Mrs. G. G., Sioux City
Spencer, Mrs. P. L., Essex
Sperry, Mrs. F. S., Clarinda
Spilman, Mrs. H. A., Ottumwa
Springer, Ms. F. A., Des Moines
Sproul, Mrs. W. M., Des Moines
Standefer, Mrs. J. M., Des Moines
Stark, Mrs. C. H., Cedar Rapids
Stark, Mrs. F. M., Sioux City
Starry, Mrs. A. C., Sioux City
Stauch, Mrs. M. O., Moorehead
Stauch, Mrs. O. A., Sioux City
Steelsmith, Mrs. F. R., Des Moines
Steffens, Mrs. L. F., Dubuque
Stepp, Mrs. J. K., Manchester
Sternagel, Mrs. Fred, West Des Moines
Sternhill, Mrs. Isaac, Council Bluffs
Stevens, Mrs. C. W., Dubuque
Steves, Mrs. R. J., Des Moines
Stewart, Mrs. J. H., Ottumwa
Stickler, Mrs. R. B., Des Moines
Stitt, Mrs. P. L., Fort Dodge
Stolley, Mrs. J. G., Moville
Storck, Mrs. R. D., Dubuque
Straub, Mrs. J. J., Dubuque
Stroy, Mrs. H. E., Osceola
Sulzbach, Mrs. J. F., Burlington
Sutton, Mrs. G. H., Jr., Boone
Sweeney, Mrs. L. J., Sanborn

Tait, Mrs. J. H., Des Moines
Talley, Mrs. L. F., Marshalltown
Taylor, Mrs. J. H., Clinton
Taylor, Mrs. L. A., Ottumwa
Teigland, Mrs. J. D., Des Moines
Thatcher, Mrs. W. C., Fort Dodge
Theisen, Mrs. R. I., Dubuque
Thielen, Mrs. E. W., Waterloo
Thierman, Mrs. E. J., Cedar Falls
Thoman, Mrs. W. S., Sioux City
Thomas, Mrs. J. H., Sibley
Thompson, Mrs. E. D., Jefferson
Thomsen, Mrs. J. G., Des Moines
Thomsen, Mrs. T. F., Red Oak
Thornburg, Mrs. W. V., Guthrie Center
Thornton, Mrs. F. E., Des Moines
Thornton, Mrs. T. F., Waterloo
Thornton, Mrs. T. F., Jr., Waterloo
Thorson, Mrs. J. A., Dubuque
Throckmorton, Mrs. J. F., Des Moines
Throckmorton, Mrs. R. F., Des Moines
Throckmorton, Mrs. T. D., Des Moines
Tice, Mrs. W. A., Waterloo
Tiedeman, Mrs. J. P., Sioux City
Tierney, Mrs. E. J., Sioux City
Todd, Mrs. D. W., Guthrie Center
Todd, Mrs. R. L., Burlington
Toubes, Mrs. A. A., Des Moines
Tracy, Mrs. J. S., Sioux City
Trafton, Mrs. H. F., Council Bluffs
Trueblood, Mrs. C. A., Indianola
Trunnell, Mrs. T. L., Waterloo
Turner, Mrs. H. V., Des Moines
Turner, Mrs. W. R., Fort Dodge
Tyler, Mrs. D. E., Fort Dodge
Tyrrell, Mrs. J. E., Manchester

Updegraff, Mrs. R. R., Des Moines
Updegraff, Mrs. T. R., Waterloo

Van Eldik, Mrs. Dick, Orange City
Vander Stoep, Mrs. H. L., LeMars
Van Duzer, Mrs. W. R., Casey
Vangsness, Mrs. I. U., Sioux City
Van Natta, Mrs. C. W., Des Moines
Van Patten, Mrs. E. M., Fort Dodge
Vaubel, Mrs. E. K., Estherville
Veltman, Mrs. J. F., Winterset
Vercio, Mrs. R. A., Burlington
Vincent, Mrs. J. F., Fort Dodge
Viner, Mrs. Thomas, Leon
Vineyard, Mrs. T. L., Ottumwa
Voigt, Mrs. E. J., Burlington
Voigt, Mrs. F. O., Oskaloosa
Vorisek, Mrs. E. A., Des Moines
Vruno, Mrs. M. J., Fulton, Illinois

Waggoner, Mrs. C. V., Clinton
Wagner, Mrs. D. J., Sioux City
Wainwright, Mrs. Max, Sioux City
Walker, Mrs. G. L., Burlington
Walker, Mrs. Leota, Ottumwa
Wall, Mrs. J. M., Boone
Walliker, Mrs. W. M., Clinton
Walter, Mrs. D. J., Des Moines
Walston, Mrs. J. M., Sioux City
Ward, Mrs. D. F., Dubuque
Ward, Mrs. L. W., Oelwein
Ward, Mrs. T. L., Arnolds Park
Warren, Mrs. E. T., Stuart
Waterbury, Mrs. C. A., Waterloo
Waterbury, Mrs. C. A., Jr., Waterloo
Watson, Mrs. C. F., Fairfield
Watters, Mrs. G. H., Des Moines
Watts, Mrs. C. F., Marengo
Weaver, Mrs. R. L., Cumberland
Wehman, Mrs. E. J., Burlington
Weih, Mrs. E. P., Clinton
Weingart, Mrs. J. S., Des Moines
Weir, Mrs. E. C., Council Bluffs
Wellman, Mrs. Thomas, Clinton
Wells, Mrs. R. C., Marshalltown
Wessels, Mrs. W. R., Marshalltown
West, Mrs. A. G., Council Bluffs
West, Mrs. N. D., Avoca
West, Mrs. W. E., Centerville
Westly, Mrs. S. S., Manly
Wetrich, Mrs. M. F., Grand Junction
Weyhrauch, Mrs. R. A., Waterloo
Weyer, Mrs. J. J., Fort Dodge
Wheeler, Mrs. R. A., Des Moines
Whitaker, Mrs. B. T., Boone
Whitehill, Mrs. N. M., Boone
Whitehouse, Mrs. W. N., Ottumwa
Wichern, Mrs. H. E., Des Moines
Wicklund, Mrs. M. M., Waterloo
Wicks, Mrs. R. L., Boone
Widmer, Mrs. J. G., Wayland
Widmer, Mrs. R. B., Winfield
Wiedemeyer, Mrs. J. L., Sioux City
Wilcox, Mrs. D. E., Atlantic
Wildberger, Mrs. W. C., Perry
Wilke, Mrs. F. A., Perry
Willett, Mrs. W. J., Manchester
Wilson, Mrs. F. L., Sioux City
Wilson, Mrs. F. W., Jr., Sioux City
Winninger, Mrs. L. T., Waterloo
Wirsig, Mrs. A. O., Shenandoah
Wirtz, Mrs. D. C., Des Moines
Wolfe, Mrs. O. R., Marshalltown
Wolfe, Mrs. R. M., Marshalltown
Wolfe, Mrs. W. C., Ottumwa
Wolpert, Mrs. Paul L., Onawa
Wolters, Mrs. D. E., Estherville
Woodard, Mrs. F. O., Des Moines
Woodburn, Mrs. C. C., Des Moines
Woods, Mrs. A. D., State Center
Wooters, Mrs. R. C., Des Moines
Wormhoudt, Mrs. H. L., Ottumwa
Worrell, Mrs. J. T., Keosauqua
Wright, Mrs. D. W., Decorah
Wubbena, Mrs. A. G., Rock Rapids

York, Mrs. D. L., Villisca
Young, Mrs. G. C., Des Moines
Young, Mrs. J. J., Clinton
Young, Mrs. R. A., Clarion
Yugend, Mrs. S. F., Indianola

Zager, Mrs. L. L., Waterloo
Zoeckler, Mrs. Samuel, Des Moines

PAST PRESIDENTS OF THE WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

Mrs. M. N. Voldeng, Independence....1929
*Mrs. E. L. Bower, Guthrie Center....1930
*Mrs. Channing Smith, Granger....1931
*Mrs. P. M. McLaughlin, Sioux City....1932
Mrs. W. A. Seidler, Jamaica....1933
Mrs. J. A. Downing, Des Moines....1934
Mrs. M. C. Hennessy, Iowa City....1935
Mrs. C. A. Boice, Washington....1936
Mrs. S. E. Lincoln, Des Moines....1937
Mrs. D. W. Harman, Glenwood....1938
Mrs. E. A. Hanske, Bellevue....1939
Mrs. E. T. Warren, Stuart....1940
Mrs. W. R. Hornaday, Des Moines....1941
Mrs. F. W. Mulsow, Cedar Rapids....1942
Mrs. W. S. Reiley, Red Oak....1943
Mrs. J. C. Decker, Sioux City....1944
Mrs. S. S. Westly, Manly....1945
Mrs. M. H. Brinker, Jefferson....1946
Mrs. Fred Moore, Des Moines....1947
Mrs. A. G. Felter, Van Meter....1948
Mrs. R. M. Minkel (Sioux Falls, S. D.)....1949
Mrs. C. H. Mitchell, Cincinnati....1950
Mrs. H. W. Smith, Woodward....1951
Mrs. L. A. Coffin, Farmington....1952
Mrs. E. B. Hoeven, Ottumwa....1953
Mrs. L. R. Hegg, Rock Valley....1954
Mrs. H. E. Flynn, Clarinda....1955

* Deceased

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

THE YEAR BOOK OF ENDOCRINOLOGY, 1955-1956 Year Book Series, ed. by *Gilbert S. Gordon*, M.D., Ph.D. (Chicago, The Year Book Publishers, 1956. $6.00).

HISTAMINE, a Ciba Foundation Symposium, ed. by G. *E. W. Wolstenholme* and *Cecilia M. O'Connor*. (Boston, Little, Brown & Company, 1956. $9.00).

PSYCHOSOMATIC ASPECTS OF SURGERY, ed. by *Alfred J. Cantor* and *Arthur N. Foxe*. (New York, Grune & Stratton, Inc., 1956. $6.50).

ELECTRODIAGNOSIS AND ELECTROMYOGRAPHY, VOL. I, ed. by *Sidney Licht*, M.D. (New Haven, Elizabeth Licht, Publisher. 1956. $).

THE MANAGEMENT OF MENSTRUAL DISORDERS, by C. *Frederic Fluhmann*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $8.50).

THE MENNINGER STORY, by *Walker Winslow*. (New York, Doubleday & Co., Inc., 1956. $5.00).

BOOK REVIEWS

CLINICAL BIOCHEMISTRY, FIFTH EDITION, by *Abraham Cantarow*, M.D., and *Max Trumper*, Ph.D. (Philadelphia, W. B. Saunders Co., 1955. $9.00).

Max Trumper, Ph.D., was formerly lecturer in biochemistry and basic science coordinator at the Naval Medical School, National Naval Medical Center, Bethesda, Maryland.

The first edition of this book was published in 1932. Its purpose was to correlate established facts in biochemistry with problems encountered daily in medical practice. Later editions appeared in 1939, 1945, 1949 and, most recently, in 1955. The original objective has not changed. However the increased familiarity of the practicing physician with physiology, with biochemistry and with the value and use of laboratory diagnosis in general has made it no longer necessary for the authors to treat the subject matter in an elementary fashion.

The text of the present edition has been virtually rewritten. Much new material has been added, including considerable amounts on each of the following topics: liver function; kidney function; plasma protein abnormalities; biological significance of nucleic acids; uric acid metabolism; lipoproteins; and acid base balance and endocrine functional diagnosis, especially that of the thyroid and adrenal glands.

In addition to making these additions and revisions, the authors have comprehensively reviewed metabolism of carbohydrates, lipids, protein, hemoglobin, calcium and inorganic phosphate, phosphatase activity, and magnesium, iron, sulfur, iodine, sodium, potassium and chloride metabolism. In separate chapters, problems of water balance, acid-base balance, respiratory exchange and basal metabolism, hormone assay and endocrine function, vitamins, gastric, pancreatic, hepatic and renal functions and cerebrospinal fluid are discussed. The book, with but few exceptions, does not include the technics of laboratory examinations, since the authors feel that there are many other standard texts in which physicians can find such data.

The presentation of each subject is dynamic, generally beginning with either the absorption or biosynthesis of the substance, and including a discussion of its interactions or interrelationships with other biochemical substances (both normal and abnormal), and its fate. Many graphic and tabular illustrations are provided for rapid understanding. Long bibliographies and direct references have been eliminated from the text, and in their place the authors have submitted lists of selected references.

The various subjects are dealt with in enough detail to provide the reader an understanding of the concepts of biochemistry, and yet the presentations are direct and to the point. Controversial subjects are set forth in an impartial manner. The subject matter as a whole is presented as a summation of contemporary knowledge on each specific subject. This book qualifies as one which every clinician will find beneficial in his everyday practice.—*F. C. Coleman*, M.D.

DISEASES OF THE SKIN, ELEVENTH EDITION, by *Richard L. Sutton*, M.D. (St. Louis, The C. V. Mosby Co., 1956. $29.50).

The eleventh edition of this book is the first one to be edited by the younger Sutton alone. It is very comprehensive—I might almost say encyclopedic. It is remarkably current in its content. It seems that Sutton must have kept adding new information while the pages were being printed.

The chapters, after those on anatomy and physiology, etc., are classified etiologically as dermatoses due to physical agents, due to chemical agents, due to viruses, due to rickettsiae, due to bacteria, due to fungi, due to animals, due to metabolic disorder, due to pigmentary disorder, due to neurologic and psychiatric origin and, finally, due to undetermined cause.

Skin disease as a manifestation of internal disorder has been correlated with internal disorders in this book to a greater degree than in any other standard dermatologic text with which I am familiar, except for those books devoted specifically to that subject.

Dr. Sutton has also instituted the method of giving a brief resume of the articles of pertinent interest to which he refers, and of giving the reference concomitantly with the matter he is discussing. This practice is one that I find most useful.

Dr. Charles Rein has written a fine section on the serology of syphilis.

I recommend this edition to all physicians. For dermatologists, it can be especially valuable for references and bibliography.—*S. Greenhill*, M.D.

(Additional Book Reviews on pages 432 and xxiv)

Iowa Academy of General Practice

THE DOCTOR—THE CITIZEN

In spite of the fact that the requirements of his practice often keep him at work as many as 70 or more hours a week, it is necessary that the doctor also enter into the spirit of being a citizen and take a definite part in community activity. The doctor who is successful is bound to exert a force in the community in which he lives and works. It becomes an essential part of his life not only to take care of his fellow townsmen's physical ills, but also to help them direct their community affairs along the right channels. Because the doctor is well educated, having spent more time in training than most of the other people in the area, he is a natural leader.

True, the average doctor gives much money to various charities. But money only helps; it is actual work and participation that can make his home area a better one.

In the recent primary election everyone had an opportunity to exercise his citizenship, and post-election discussions have revealed that a high percentage of doctors exercised their right to express themselves at the polls. Doctors discuss candidates for office, and perhaps they have a better understanding of the political setup than does the average person. They should be encouraged to continue expressing their opinions as regards the men who are running for office, and they should also discuss local community problems with others who are not so well informed.

One could write a book about community enterprise and about the opportunities that are available to individuals in that field, but there is no necessity for anyone's doing so, since encouragement is all that most of us need to make us good citizens in every way.

SCIENTIFIC ASSEMBLY

On September 13 and 14, 1956, at Hotel Savery in Des Moines, the Iowa Chapter will present its scientific program. This program is designed to meet the needs of the generalist and is made up of subjects under the general heading of diseases of the abdomen. Besides some of the diseases of the stomach and colon, vascular disease, including hypertension and peripheral vascular disease, will be taken up. All of the topics will be of interest to general practitioners, and many of the lectures should attract specialists.

The program is free to Academy members, and a fee of $5.00 will be asked of others.

Special entertainment for the ladies is to be provided during this scientific program. The two luncheon speakers will talk on subjects that the ladies will enjoy, and an entertainment committee composed of Mrs. Donald H. Kast, Mrs. C. A. Nicoll and Mrs. Floyd Burgeson have arranged special programs for the two afternoons. In addition, there will be the annual banquet on the evening of September 13, following which there will be a short program and dancing. All of the ladies are asked to mark their appointment books now, so that there can be no chance of their not being able to attend these events.

BOOK REVIEWS

(Additional Book Reviews on pages 431 and xxiv)

THE OFFICE ASSISTANT, by *Portia M. Frederick.* (Philadelphia, W. B. Saunders Co., 1956).

IN THE DOCTOR'S OFFICE, SECOND EDITION, by *Esther Jane Jane Parsons.* (Philadelphia, J. B. Lippincott Company, 1956).

Here are two excellent volumes which fill the needs of the assistant in a doctor's office. In either book, there is information which will provide invaluable suggestions about the necessary routines of the physician's daily business. Here's a suggestion: Purchase both volumes for your office helper. She will be helped immeasurably, and will be able to do better work for you. —*Everett M. George,* M.D.

HANDBOOK OF PHYSICAL THERAPY, by *Robert Shestack.* (New York, Springer Publishing Company, Inc., $4.25).

This volume is exactly described in its title, for it is a handbook which presents the various modalities of physical therapy and the various conditions in which this type of treatment is indicated. The author is well qualified in this field. Illustrations are at a minimum. Students and others who are particularly interested in physical therapy will find this volume an excellent guide for their study of the subject.—*Everett M. George,* M.D.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

TYPHOID CASES, IOWA
Jan. 1-June 9, 1956

Month	*County*	*Age*	*Sex*	*Phage type*
January	Cerro Gordo	6 mo.	F	A (onset in Dec.)
January	Dubuque	22	F	E_1 (onset in Dec.)
January	Dubuque	2½	M	?
January	Polk	10	M	E_1
January	Calhoun	56	F	E_1
January	Pottawattamie	?	M	?
January	Polk	74	M	E_1
February	Hardin	4	F	E_1
February	Story	3	F	E_1
February	Warren	49	F	Degraded V_1
February	Montgomery	3	M	?
March	Poweshiek	50	F	?
March	Jackson	12	M	E_1
March	Worth	57	F	E_1
March	Polk	32	F	E_1
March	Keokuk	35	M	?
March	Polk	44	F	?
March	Scott	30	F	E_1
April	Shelby	74	M	?
April	Cerro Gordo	49	F	E_1
April	Buena Vista	58	M	?
April	Buchanan	52	M	?
April	Scott	13	F	?
April	Cerro Gordo	40	F	E_1
April	Fayette	27	F	?
April	Warren	9	F	?
April	Floyd	10	F	E_1
April	Clayton	8	M	E_1
April	Des Moines	7	M	E_1
April	Polk	21	F	E_1
April	Lee	39	M	?
April	Black Hawk	14	F	?
April	Chickasaw	30	F	?
April	Lee	15	F	E_1
April	Dubuque	51	F	?
April	Van Buren	13	F	?
April	Polk	21	F	E_1
May	Van Buren	14	M	?
May	Scott	37	F	?
May	Polk	68	M	E_1
May	Benton	9	F	?
May	Mahaska	?	M	E_1
May	Muscatine	?	M	?
May	Audubon	?	M	E_1

The above list includes 44 cases of typhoid fever reported by the State Department of Health since January 1, of this year. These cases all have had a clinical history compatible with typhoid fever, and elevated agglutination titers. The causative organism was not recovered in six of the earlier cases. In some of those reported since April the organism has been recovered, but phage typing has not been completed.

The 44 cases of typhoid fever for the first five months of 1956 (with about 10 more cases under investigation) greatly exceeds the total cases for any recent year. Twenty-seven cases were reported in 1952; 21 in 1953; 19 in 1954; and 28 in 1955.

The case distribution is state-wide. Fewer males than females between the ages of 19 and 55 have developed the disease, probably because almost all males in that age range have received typhoid immunizations during their military service. Two male patients in the 19 to 55 age range reported having had typhoid immunization in service seven to ten years ago.

Normally, only a comparatively small percentage of the organisms isolated in Iowa are shown to be phage type E_1. In this series, however, 21 of 23 of those organisms for which phage typing has been completed are phage type E_1. The A phage case and another in Cerro Gordo County in October, 1955, were traced to the maternal grandparents of the second case. Both grandparents were found to be carriers of A phage type organisms. One of the grandparents had had a cholecystectomy ten years ago. The patient with the V_1 phage type organism became ill soon after returning from a trip to Mexico. She had not had typhoid immunizations before making the trip. Neighboring states, which like Iowa are reporting increased incidences of typhoid fever, are also finding high percentages of phage type E_1 organisms.

The State Department of Health is doing its best to investigate all reported cases of typhoid fever. Ordinarily, we find carrier sources for almost all of our cases, but few carriers have been found so far this year. The increased number of cases distributed indicates that infection is probably caused by some food article in interstate commerce. The U.S.P.H.S. is helping to correlate and extend the work of the state departments of health in the area concerned.

For immunization of any contacts of a known case of typhoid fever, the Iowa State Department of Health has typhoid vaccine for any physician who requests it.

In July, 1954, the Iowa State Board of Health set up the following regulation regarding the release of all diagnosed cases of typhoid fever: *"Before release of any case of typhoid fever from isolation precautions as a possible carrier, the physician in charge shall submit stool and urine specimens in proper containers to the State Hygienic Laboratories for examination for typhoid bacilli. These specimens are to be taken no less than 14 days after the last use of antibiotics. Two consecutive negative stools collected not less than 24 hours apart are required for release."*

Poliomyelitis Vaccine Released for Distribution In Iowa May 1, 1956-June 8, 1956

List No.	Company	Amount (cc)	Amt. for State Dept of Health	Release Date	Exp. Date
25	Lilly	31,563	10%	May 9, '56	Nov. 9, '56
26	Lilly	32,346	10%	May 14, '56	Nov. 14, '56
27	Lilly	13,293	10%	May 17, '56	Nov. 17, '56
	Wyeth	5,715	10%	May 17, '56	Nov. 17, '56
28	Sharp-Dohme	10,908	10%	May 21, '56	Nov. 4, '56
29	Lilly	81,900	10%	May 31, '56	Nov. 31, '56
	Pitman Moore	22,664	10%	May 31, '56	Nov. 31, '56
30	Parke, Davis	8,703	10%	May 31, '56	Nov. 31, '56
	Wyeth	20,754	10%	May 31, '56	Nov. 31, '56

The list numbers of releases of vaccine to Iowa for May totalled 227,826 cc. (25 through 30).

This amount is greater than the total of the two previous months, 189,469 cc. Thus, the trend of increase started in March is continuing and follows the pattern of promised releases.

Requests by counties for vaccine for indigent and medical hardship cases continue to be great enough to require the State Department of Health to continue purchasing 10 per cent of the vaccine.

Vaccine gets to us and the practicing physician in about 8 to 10 days following the Federal release date of the vaccine.

MORBIDITY REPORT FOR MONTH OF MAY

Disease	1956 May	1956 Apr.	1955 May	Most Cases Reported From These Counties
Diphtheria	1	2	1	Pottawattamie 1
Scarlet Fever	85	106	50	Polk, Clay, Buena Vista, Des Moines, Cedar
Typhoid Fever	21	4	2	Black Hawk 1, Buchanan 1, Chickasaw 1, Clayton 1, Des Moines 1, Dubuque 1, Floyd 1, Jackson 1, Lee 2, Polk 4, Poweshiek 1, Scott 3, Shelby 1, Van Buren 1, Warren 1
Smallpox	0	0	0	
Measles	1402	1287	1018	Buena Vista, Polk, Calhoun, Scott, Hamilton
Whooping Cough	47	38	94	Polk, Page, Lee, Des Moines
Brucellosis	9	18	22	1 each for Cerro Gordo, Crawford, Dickinson, Grundy, Hancock, Johnson, Madison, Muscatine, Poweshiek
Chickenpox	731	874	241	Polk, Dubuque, Scott, Story, Des Moines, Lee
Meningococcus Meningitis	2	0	3	Polk 1, Worth 1
Mumps	233	277	645	Des Moines, Scott, Dubuque, Linn, Buena Vista
Poliomyelitis	7	6	16	Clinton 1, Franklin 1, Henry 1, Jasper 1, Pottawattamie 1, Poweshiek 1, Scott 1
Inf. Hepatitis	40	40	102	Des Moines, Linn, Clinton, Woodbury, Winneshiek
Rabies in Animals	13	35	18	Iowa 2, Van Buren 2, others scattered 1 to a Co.
Malaria	0	0	1	
Psittacosis	1	0	2	Cass 1
Q Fever	0	0	1	
Tuberculosis	41	27	33	For the State
Syphillis	46	49	98	For the State
Gonorrhea	41	45	44	For the State

Decision Made to Recommend First Injections of Poliomyelitis Vaccine in Iowa During Coming Months

Subsequent to our April meeting with poliomyelitis medical advisory groups, the Surgeon General called a meeting in Washington to discuss poliomyelitis vaccination policies for the coming months. The group reached the conclusion that "the total preventive effect of the vaccine is much greater than any slight hazard of provocation" and so recommended that first injections of the vaccine be continued during the summer months when poliomyelitis may be present in high incidence. Since receiving this information, the State Department of Health has corresponded with all members of its poliomyelitis medical advisory groups. As a result, our recommendations to "withhold first injections of poliomyelitis vaccine in Iowa from July through October" have been withdrawn.

POLIOMYELITIS CASES—1954 & 1955

1954

	MALE			FEMALE			
Age	Para.	Non-Para.	Unspec.	Para.	Non-Para.	Unspec.	Total
0-4	68	78	33	52	47	18	296
5-9	65	133	45	42	63	22	370
10-14	56	66	20	35	43	7	227
15-19	23	30	13	21	33	17	137
20-24	11	25	10	25	28	12	111
25-29	31	20	7	24	36	10	128
30-34	14	11	12	13	16	4	70
35-39	12	14	0	12	8	4	50
40-	7	8	2	9	10	2	38
No age	2	7	4	2	4	2	21
Total	289	392	146	235	288	98	1448

1955

	MALE			FEMALE			
Age	Para.	Non-Para.	Unspec.	Para.	Non-Para.	Unspec.	Total
0-4	17	51	6	15	15	7	111
5-9	10	70	0	7	33	1	121
10-14	11	35	4	12	17	4	83
15-19	2	31	1	7	22	2	65
20-24	2	15	4	4	19	3	47
25-29	7	19	2	4	22	2	56
30-34	6	8	0	4	10	2	30
35-39	2	5	0	3	6	0	16
40-	6	4	0	0	6	2	18
No age	1	4	0	1	3	2	11
Total	64	242	17	57	153	25	558

Plan to Attend the

ISMS ANNUAL MEETING

April 28-May 1, 1957

WOMAN'S AUXILIARY NEWS

Mrs. E. T. Burke, *Woman's Editor*
601 S.W. 42nd St., Des Moines 12

LINES FROM THE PRESIDENT

The afterglow of our April convention, with its beautiful luncheons, its fun and frolic times, and its stimulating work sessions, continues to gleam brightly for your new president.

As was to be expected, some officers and committee personnel are new, but you, the members of this Auxiliary, have demonstrated by your constant loyalty and willingness in the past that our continuous process of growth will not cease or lag.

My study of your Annual Reports submitted this year gives me confidence. This year's officers and chairmen are the guardians of an inheritance from our past years which we must continue to develop and pass on to the future.

The bee community is an extremely well organized one, ruled by a queen. The bees' homage to their queen is short—"The Queen is dead; long live the Queen!" I hope we can show the industry of the worker bee, but the inspirational leadership, enthusiasm and dedicated belief in this Auxiliary shown by our past president and her officers must not be lost.

You will soon have my letters containing suggested plans for a summer board meeting, to coordinate planning, simplify procedures and, by small conferences with our officers and chairmen, aid one another with the local problems.

"We teach a little by what we say; we teach more by what we do; but we teach most by what we are!"

Mrs. Dean H. King, *President*

NURSE RECRUITMENT

The Nurse Recruitment and Loan Fund Committee met on May 17 at the home of Mrs. Noble Irving, in Des Moines, with the following ladies present: Mrs. B. F. Howar, Mrs. J. F. Gerken, Mrs. B. F. Kilgore, Mrs. E. A. Larsen, Mrs. G. H. Watters, Mrs. E. A. Vorisek and Mrs. Hazel Lammey. It was determined that with the present funds, at least three new loans could be granted, in addition to the commitments already made. We have 12 loans outstanding at present.

Thought should be given as to what kind of limit should be put on our loan fund. Possibly by 1957, the amount will be sufficient so that it can be made a rotating fund.

The treasurer of each county Auxiliary will have memorial cards for anyone who desires to make a donation to the Nurse Loan Fund as a memorial. Thus, the bereaved family can receive the card immediately.

Plans for having a "Future Nurses Day" were discussed, and the Committee has decided that it should be held on a day prior to the regular convention. Plans are being made to hold this event on Friday, November 2, at Drake University.

THANKS

To County Officers, and Press and Publicity Chairmen: May I say "thank you" for the quality and consistency of your reporting. It has been a stimulating challenge to me.

To doctors' wives in counties whose activities haven't been mentioned recently in the AUXILIARY NEWS: I suggest that you make sure that your county publicity chairman is sending items regularly to the editor.

Beginning with this month, your new editor is Mrs. E. T. Burke, 601 S.W. Forty-second Street, Des Moines 12. Best wishes to her.

Mrs. Edward Hoeven

THE ROLE OF THE DOCTOR'S WIFE

A doctor's wife can be his greatest advertisement, Dr. Elmer Hess, retiring president of the AMA told the Auxiliary convention in Chicago. "After all," he said, "we can't talk about ourselves the way our wives can talk about us."

He told the doctors' wives that their husbands' careers often may depend upon their understanding of public relations. In small communities, many doctors' wives work alongside their husbands in their offices. There, Dr. Hess said, they should be good listeners to the troubles related by patients. In cities, the way they answer the telephone and take messages from patients is important.

Then, he continued, a wife should lead a Girl Scout troop, join the PTA, aid civic projects and make sure that her family votes.

In some ways, he said, a doctor's wife is no different from any other woman. These include attractive appearance, efficiency as a homemaker and skill as a mother. But, he pointed out, the doctor's wife needs patience in waiting long hours for her husband to come home, and something extra, besides. That extra he described as "knowing how to keep her mouth shut and how to talk

at the same time." Doctors' wives often know secrets about their husbands' patients that must never be revealed, he explained.

COUNTY AUXILIARIES

Boone

The regular meeting of the Auxiliary to the Boone County Medical Society met for luncheon on Tuesday, May 1, at the Lincoln Restaurant.

Mrs. Ross Gunn gave a report on the state meeting that had been held in Des Moines. The Boone County Auxiliary had been awarded the Achievement Award Certificate.

Mahaska

The Woman's Auxiliary to the Mahaska County Medical Society met on May 8 at the Downing Hotel, in Oskaloosa, for a luncheon meeting. Two guests from Sigourney, Mrs. R. Giles Gillett and Mrs. Roger Augspurger, were present.

Mrs. George Atkinson, the president, read two congratulatory letters, one from Mrs. S. P. Leinbach, concerning our winning poster which had been displayed at the State Medical Society's meeting in Des Moines. Mrs. Atkinson, Mrs. Robert Alberti and Mrs. Kenneth Lemon gave reports on the state meeting of the Auxiliary.

The date of the Crippled Children's Clinic in Oskaloosa, to serve patients from seven counties, was announced as being June 7.

Polk

The Auxiliary to the Polk County Medical Society met for luncheon on May 14 at the Des Moines Golf and Country Club. Mrs. Ralph Hines, retiring president, was presented a gift from the Auxiliary. Mrs. Dean King, president of the Auxiliary to the Iowa State Medical Society, installed the newly elected officers, and Mrs. Julian Bruner gave a very interesting review of the current New York plays.

A board meeting was held recently at the home of Mrs. Dwight Wirtz, the newly installed president. Plans were made for future meetings and projects of the Auxiliary.

Help your central office to maintain an accurate mailing list. Send your change of address promptly to the JOURNAL, 529-36th Street, Des Moines 12, Iowa.

EXHIBITS CONTEST, 1955-1956

An extraordinary situation developed following the awarding of prizes for exhibits at the state meeting of the Auxiliary. Awards were offered to three classes of county chapters: Division I, 1-18 members; Division II, 19-49 members; and Division III, 50 or more members; and the judges, Dr. G. V. Caughlan, of Council Bluffs, Dr. R. N. Larimer, of Sioux City, and Dr. B. T. Whitaker, of Boone, declared Mahaska, Webster and Polk to be the winners, respectively, with Wright the second-prize winner in Division I and Black Hawk the second-prize winner in Division III.

But after the judging it was discovered that Page County's entry had been entered in the wrong class. That Auxiliary's membership falls within the limits of Division II, and since there had been only one other entry in that division, the Page County exhibit should have been entitled to either a first or a second prize. In consequence, and without prejudice to the Webster County entry, it was decided to award first-prize money to both.

In reporting their decisions, the judges expressed regret at being unable to give a prize to every entry, for, they said, each exhibit provided a very good index to the organization's projects. They singled out the Polk County entry for special praise, and recommended that the sketches by Mrs. Robert Updegraff which composed it should be published serially in the WOMAN'S AUXILIARY NEWS.

Following the judging, the exhibits were displayed in the Auxiliary's booth on the arena floor of the Municipal Auditorium, where they were seen by many doctors and visitors and did much to demonstrate the activities and objectives of the Auxiliary as a whole.

FATAL FALLACIES

To pit the speed of one's reflexes against the modern automobile's super horsepower—

To "pour it on" on the straightaway, no matter how clear the day, how dry the road or how wide the highway—

To drive while intoxicated or weary in the vain hope that the homing instinct will assure a safe arrival—

To believe that the rules of the road are meant for beginners—

To rely on built-in safety features to compensate for the lack of care—

These are just some of the fatal fallacies which cause grievous injury or death on our highways. In more than 80 per cent of all accidents that cause bodily injury, there is a driving violation. Accidents don't just happen.

A RESEARCH MILESTONE

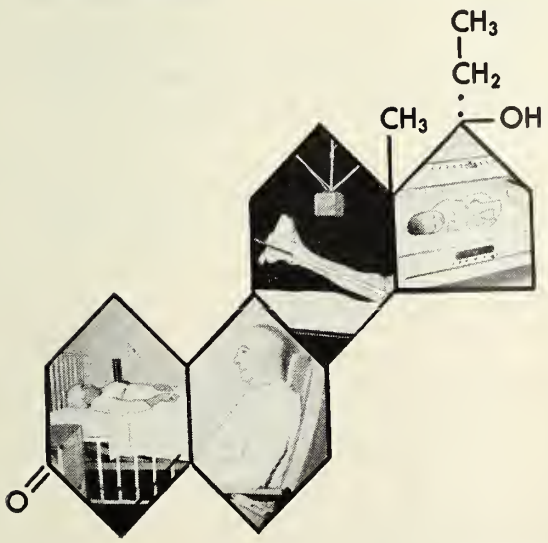
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Searle's New and Practical Steroid Specifically for Protein Anabolism—

It has long been recognized that a substance which would promote protein anabolism would be of inestimable value in therapy. The androgens have this property, but unfortunately they also exert actions on secondary sex characteristics. These effects are commonly undesirable in therapeutic programs.

THE FIRST STEROID WITH ANABOLIC SPECIFICITY—Nilevar, the newest Searle Research development, therefore, meets a long desired clinical need because Nilevar presents the first steroid primarily anabolic for protein synthesis. Moreover, Nilevar is without prominent androgenic effects (only about one-sixteenth of that exerted by the androgens).



OBJECTIVE AND SUBJECTIVE RESPONSE — Orally effective, Nilevar therapy is characterized by retention of nitrogen, potassium, phosphorus and other electrolytes in ratios indicative of protein anabolism. Moreover, subjectively the patient observes an increase in appetite and sense of well-being.

WELL TOLERATED—Nilevar has an extremely low toxicity. Laboratory animals fail to show toxic effects after six months of continuous administration of high dosages. Nilevar should not be administered to patients with prostatic carcinoma. Nausea or edema may be encountered infrequently. Slight androgenicity may be evidenced on high dosage or in particularly responsive individuals.

MAJOR INDICATIONS—Preparation for and recovery from surgery; supportive treatment of serious illnesses (pneumonia, poliomyelitis, carcinomatosis, tuberculosis); recovery from severe trauma and burns; decubitus ulcers; care of premature infants.

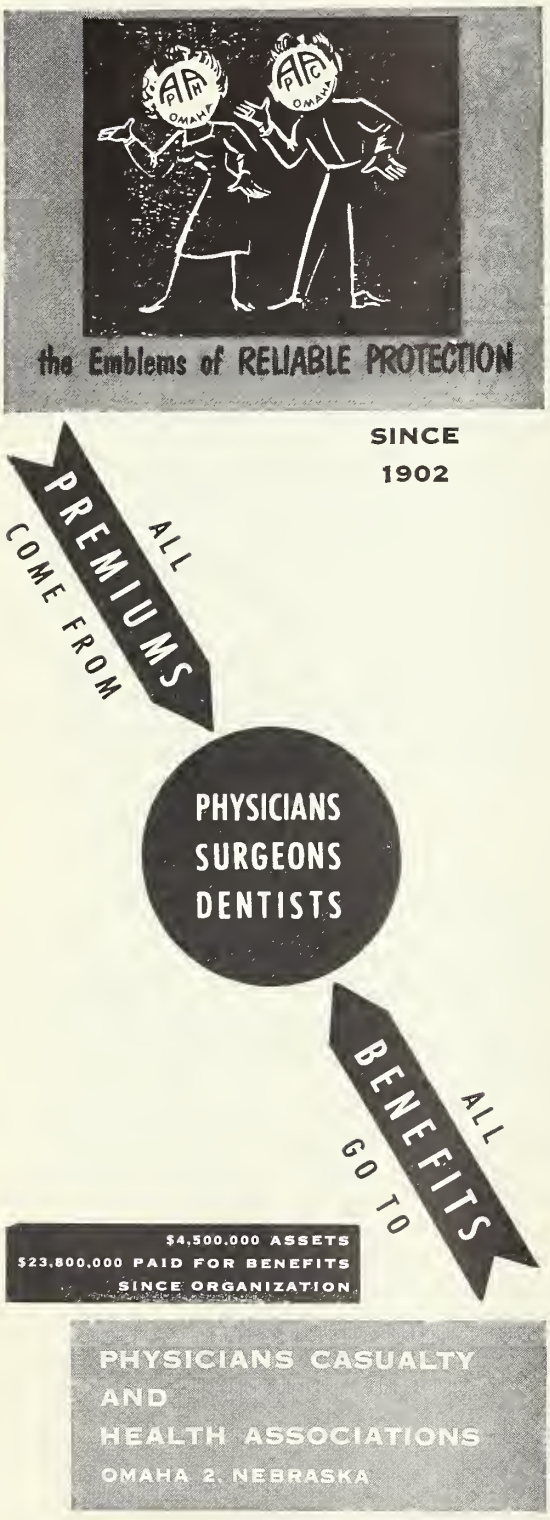
DOSAGE—The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the average daily dose is 1 to 1.5 mg. per kilogram of body weight; individual dosages depend on need and response to therapy.

SUPPLY—Nilevar is available in uncoated, unscored tablets of 10 mg. G. D. Searle & Co., Research in the Service of Medicine.

*Trademark of G. D. Searle & Co.

SEARLE

WE CORDIALLY INVITE YOUR INQUIRY for application for membership which affords protection against loss of income from accident and sickness as well as benefits for hospital expenses for you and all your eligible dependents.



The Month in Washington

Washington, D. C.—Before the end of the year hundreds of thousands of dependents of military personnel, living in all parts of the country, should be receiving their medical care from private physicians and in private hospitals under the new program authorized this year by Congress. While Defense Department has not yet completed regulations to implement the act, the law itself lays down the basic principles governing the program.

The House Armed Services Committee first attempted to decide on a system or systems for furnishing private care through Blue Cross, Blue Shield, arrangements with state medical societies, commercial insurance, or "home town care" such as Veterans Administration successfully employs. But the Committee gave up on the problem, and Congress finally tossed it to the Secretary of Defense by stating in the bill that he shall ". . . after consultation with the Secretary of Health, Education, and Welfare . . . contract for medical care for such persons . . . under such insurance, medical service or health plan or plans as he deems appropriate." A Defense Department task force now is attempting to decide how to work out the contracts.

Although several groups of dependents will be entitled to medical care, only wives (or husbands) and children of persons on active duty will be certified for civilian care. The others will be admitted to military medical facilities on an "availability of space" basis. Although, generally, spouses and children of active-duty personnel will have a choice of private or military care, there is this limitation: The Secretary of Defense may designate certain areas where private care will not be authorized, if in his opinion those areas have military facilities adequate to care for the service families.

Dependents will be required to pay the following charges: For care in military facilities, subsistence and "in-hospital" charges (set by Secretary of Defense and currently $1.75 per day); for private care, the same fees or the first $25, whichever is the larger.

The time limit on private care is 12 months, but if hospitalization still is required after this period the dependent will be protected. In this case the Defense Department will transfer the dependent to a military facility or will make direct payment to a private hospital.

Although regulations will spell out limitations and authorizations in more detail, the law makes the following provisions:

Care in military facilities to include: 1. Diagnosis, treatment of acute medical and surgical conditions, treatment of "contagious diseases," im-



new Peach-flavored, peach-colored, newest liquid form of the established broad-spectrum antibiotic... TERRAMYCIN®† 125 mg. per 5 cc. teaspoonful; specially homogenized for rapid absorption; bottles of 2 fl. oz. and 1 pint, packaged ready to use.

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munization, and maternity and infant care. 2. Hospitalization for nervous and mental disorders, chronic diseases or elective medical and surgical treatments *but only in "special and unusual cases"* and for not more than 12 months. This would be provided at the discretion of the Secretary of Defense. Dental care is not authorized except in unusual cases, while abroad or at remote stations in the U. S.

Private care will include: 1. Hospitalization in semi-private accommodations up to one year for each admission, including all necessary services and supplies furnished by hospital. 2. Medical and surgical care incident to hospitalization. 3. Complete obstetrical and maternity service, including prenatal and postnatal care. 4. Physician or surgeon's services prior to and following hospitalization for bodily injury or surgery.

Under the private care program, some services may be furnished outside the hospital, such as surgery in a doctor's office, X-rays or laboratory tests, "but not what is normally conceived to be outpatient care." If experience shows they can be afforded, additional services may be authorized, but whatever the scope of private care, it cannot exceed that furnished in military facilities. Outpatient care will be furnished by military facilities, but "uniform minimal" charges may be imposed as a restraint on excessive demands.

NOTES

Federal appropriations for medical research are at an all-time record, explained in part by Senate approval of a 48 per cent increase over last year's funds.

Dr. Lowell T. Coggeshall, special assistant to HEW Secretary Folsom, believes some "wise changes" should be made in medical economics to facilitate payment for the "spectacular" new medical services. He expressed his views in addressing a group at the University of Pennsylvania Medical School.

Russia and eight satellites, out of active participation in World Health Organization for more than six years, now are back in. They agreed to pay 5 per cent of past-due assessments over a 10-year period.

The highway program contains a provision for a one-year study of traffic safety, a problem in which the American Medical Association has been actively interested for years.

BOOK REVIEWS

(Additional Book Reviews on pages 431 and 432)

MANAGEMENT OF PAIN IN CANCER, ed. by *M. J. Schiffrin,* Ph.D. (Chicago, The Year Book Publishers, Inc., 1956. $4.50).

Eight medical doctors, in addition to the editor, have

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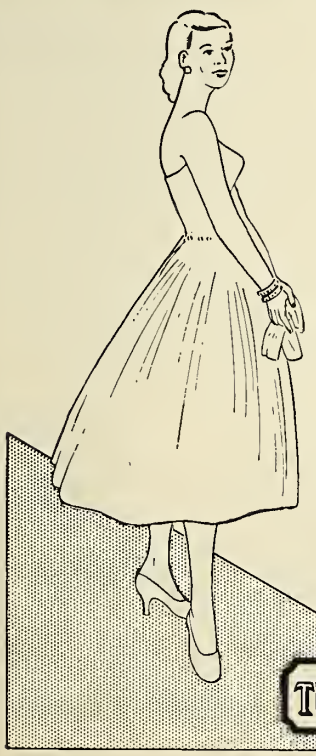
contributed seven chapters to a symposium type of discussion of the problems in managing pain in cancer. The authors include two anesthesiologists, one radiotherapist, one pharmacologist, one general surgeon, one internist, one neurologist and one neurosurgeon. Each of them holds a post in the medical school of one or another of the Midwestern universities and is qualified to delineate his part in the total problem with authority. The preface states it as the aim of the book "to guide the family physician in his efforts to mitigate the agonies of terminal malignancy," and the contributors have held conscientiously to that objective.

The first chapter deals with systemic analgetics, as regards their general pharmacology and actual medical use. The second chapter concerns the use of nerve blocks, and includes a description of technics used for special regional injections. The neurosurgeon contributes the third chapter, and includes a description of the various operative procedures employed for the neurosurgical relief of pain. Chapter four is entitled "Humoral and Chemical Palliation of Malignancy, With Special Attention to the Sex Hormones and to the Use of Chemicals in Malignancies of the Reticuloendothelial System." Chapter five describes general "surgical procedures in control of pain in advanced cancer." Specific operative procedures are outlined in relation to regions of the body and organ systems. The sixth chapter is headed "Radiation Therapy," and discusses the use of radioactive materials as well as deep roentgen therapy. The concluding, and seventh, chapter discusses "psychological aspects of pain in terminal malignancies." This chapter alone is ample reward for reading the book.

In addition to outlining technical procedures, the authors provide readers with their separate philosophies to illumine a depressing but necessary acreage in the field of medical practice. Nowhere is it urged that lives be extended merely for the sake of prolonging a useless existence, but rather, it is proposed that lives, which have been given to people to be lived to the end, should be made as comfortable as possible.

The book is small and compact, in the approximate 5″x8″ format that the Year Book Publishers customarily employ. There are 245 pages, including a foreword by Dr. Warren H. Cole, and scattered illustrations of technical procedures. The volume has appeal and is capable of supplying useful information to all doctors who are asked to treat patients with pain from cancer. Since all of us are included in that number, I recommend this book to all doctors.—*John T. Bakody,* M.D.

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Vagimine Inserts contain:

Phenyl mercuric acetate	3.5 mg.	Tyrathricin	0.5 mg.
9-aminoacridine hydrachloride	2.0 mg.	Hyamin 10X	2.0 mg.
Methyl para hydroxybenzoate	7.0 mg.	Succinic acid	15.0 mg.

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INDICATIONS:

- The acute alcoholic[1,2]—delirium tremens, acute hallucinosis, tremulousness
- The acute psychotic[1]—acute excitation due to various psychoses
- The drug addict[1]—withdrawal syndrome: nausea, vomiting, muscle and bone pains, abdominal cramps, general malaise

FINDINGS:

"The drug . . . is effective in . . . maintaining these subjects in a quiescent detached state. . . . Complications such as jaundice, . . . dermatitis, edema, lactation, basal ganglion disturbances, or depression were not observed during these studies."[1]

As with any new and potent agent, it is well to be fully informed on the precautions of use and the possibility of side-effects. Before prescribing SPARINE, the physician should consult the direction circular.

For intravenous, intramuscular, or oral administration.

Supplied: Tablets, 25, 50, and 100 mg., bottles of 50 and 500; 200 mg., bottles of 500. Injection, 50 mg. per cc., vials of 2 and 10 cc.

1. Fazekas, J.F., et al.: J.A.M.A. **161**:46 (May 5) 1956. 2. Mitchell, E.H.: J.A.M.A. **161**:44 (May 5) 1956.

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 11:15 a.m.
"Superstition or Science"

July 5 ..... Goiter
July 12 ..... Anesthesia
July 19 ..... Wounds
July 26 ..... Digitalis

WSUI—Iowa City, Iowa
Tuesday at 11:45 a.m.
"Sixteen—Growing Up"

July 3 ..... Boy Meets Girl
July 10 ..... Mama's Boy—Daddy's Girl
July 17 ..... Habits and Health
July 24 ..... Accidents and Alcohol
July 31 ..... Dizzy Whirl

TELEVISION

KRNT-TV—Des Moines, Iowa
Sunday at 12:45 p.m.
"Call the Doctor"

July 1 ..... Poliomyelitis
July 8 ..... Vacation Hazards
July 15 ..... Menopause
July 22 ..... Backaches
July 29 ..... Health Preparation for School

KGLO-TV—Mason City, Iowa
Monday at 2:00 p.m.
"Medical Diary"

July 2 ..... Vacation Hazards
July 9 ..... Backache
July 16 ..... Summer Allergies
July 23 ..... Tuberculosis

KCRG-TV—Cedar Rapids, Iowa
Sunday at 12:00 noon
"Medical Diary"

July 1 ..... Trends in Family Rearing
July 8 ..... Vacation Hazards
July 15 ..... Backache
July 22 ..... Summer Allergies
July 29 ..... Tuberculosis

KTIV-TV—Sioux City, Iowa
Saturday at 3:30 p.m.
"Medical Diary"

July 7 ..... The Mentally Retarded Child
July 14 ..... Trends in Family Rearing
July 21 ..... Vacation Hazards
July 28 ..... Backache

KWWL-TV—Waterloo, Iowa
Tuesday at 11:00 a.m.
"Your Health"

July 3 ..... Appendicitis
July 10 .. So You're Going to Have an Operation
July 17 ..... Pathology
July 24 ..... Anesthesia
July 31 ..... Dentistry

The foregoing schedules are subject to change at the discretion of the station managers.

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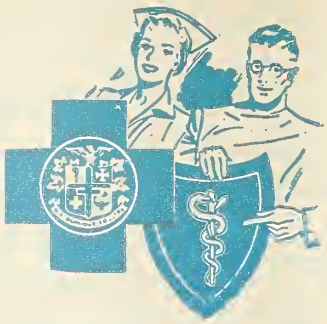
By specifying the name, the physician will be assured that this standardized form of Quinidine Sulfate Natural will be dispensed to his patient.

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Q4

BLUE CROSS



BLUE SHIELD

A Unit System for Blue Shield

Does the principle established in the California Unit System (see editorial on page 361) have a place in the Blue Shield movement?

The Relative Value Schedule established by the California Medical Association is in no sense a fee schedule, but it may be applicable as an economic measuring device for the setting up of fee schedules for the various economic strata of our population. If a statewide unit system could be developed, then each county medical society might negotiate with county officials in the establishment of a unit price for indigent care within each county. One county might agree on $2.25 per unit, whereas another, in a metropolitan area where medical costs are higher, might feel justified in a unit value around the $3.00 mark, etc.

Carrying this thought further, we might imagine that Blue Shield could offer, say, four basic fee schedules:

A. A contract calling for $3.00 per unit, covering those with incomes under $3,600 and costing $4.00 per month per family.
B. A contract calling for $4.00 per unit, covering those with incomes from $3,600—$6,000 and costing, say, $6.75 per month per family.
C. A contract calling for $5.00 per unit, covering those with incomes from $6,000—$10,000 and costing, say, $8.00 per month per family.
D. A contract calling for $6.00 per unit, covering those with incomes over $10,000 and costing, say, $9.50 per month per family.

From these basic schedules, variations could readily be introduced such as deductibles and co-insurance features.

This approach would serve two purposes. First, it would maintain the traditional pattern according to which people have paid for medical care in proportion to their financial ability. Second, it would maintain a fairly low monthly cost for those in the lower income brackets in which the bulk of our population is concentrated.

If we were to attempt the "no fee schedule" concept on a statewide basis, the monthly cost would soon go out of reach of the majority, and the people would then demand economic relief from the government. We can't buy the idea that the $250.00 per month employee should be forced to pay the same monthly cost for his Blue Shield service contract as the employee earning, say, four times that amount. The cost of medical care would thus be placed out of the reach of the low-income family.



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PERSONALS

On June 5, **Dr. T. L. Ward,** of Arnolds Park, was flown to Iowa City for emergency surgery for kidney failure.

On June 23, the community of Cleghorn honored its physician, **Dr. Charles Ihle,** at a banquet. Dr. Ihle, a Life Member of the Iowa State Medical Society, is completing his fiftieth year of practice in the town.

Dr. Frank Ober, of Burlington, was one of 20 orthopedic surgeons who conducted demonstrations at the AMA annual meeting in Chicago during June. The parts of the program in which he participated had to do with front-seat injuries in car accidents, and fractures of the elbow. Dr. Ober is one of the ISMS alternate delegates to the AMA.

Eleven persons on the staff of the SUI College of Medicine had roles in the scientific program at the AMA annual meeting in Chicago. Scientific papers were presented by **Drs. C. M. Kos,** of the Department of Otolaryngology; **James T. Bradbury,** of the Department of Obstetrics and Gynecology; **R. D. Richards,** of the Department of Ophthalmology; **Joseph A. Buckwalter,** of the Department of Surgery; and **Rubin H. Flocks,** head of the Department of Urology. Dr. Flocks also was chairman of the Section on Urology at this year's meeting.

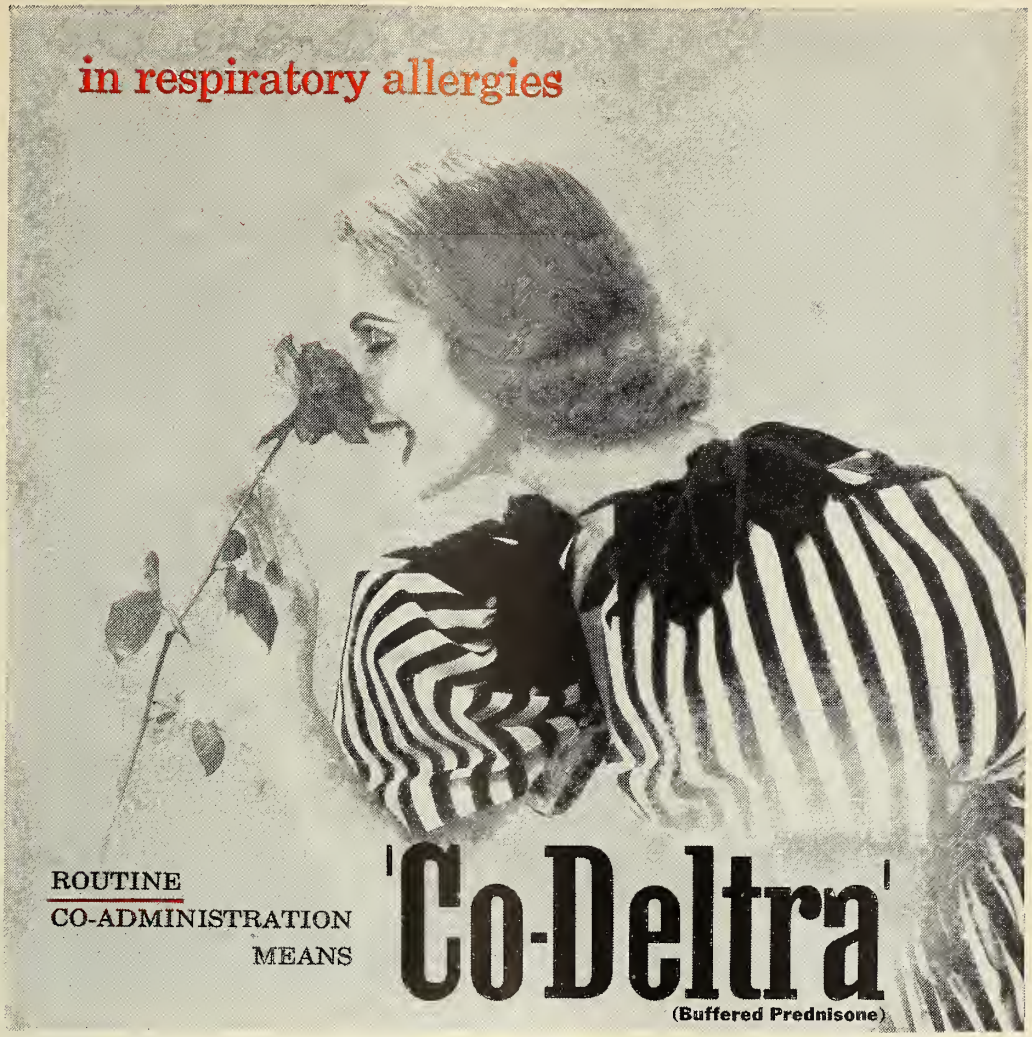
Discussions of research papers presented by other scientists were led by **Drs. S. C. Cullen,** head of the Department of Anesthesiology; **W. B. Bean,** head of the Department of Internal Medicine; **H. M. Burian,** head of the Department of Ophthalmology; and **R. T. Tidrick,** head of the Department of Surgery. **Dr. Ruben Nomland,** head of the Department of Dermatology at SUI, was vice-chairman of the Section on Dermatology at the meeting, and **Dr. Emory D. Warner,** head of the Department of Pathology, was a guest demonstrator at the scientific exhibits.

Dr. Ross C. King, of Clinton, was made a fellow of the American College of Chest Surgeons at the organization's annual meeting in Chicago during June.

Dr. Jack M. Martt, assistant professor of internal medicine, left the College of Medicine at SUI on July 1 to accept a position with the University of Missouri's medical college.

Dr. James W. Ryan, a recent graduate of the SUI College of Medicine who has been interning

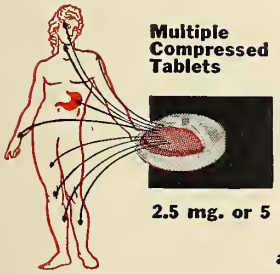
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References: 1. Boland, E. W., *J.A.M.A.* 160:613, February 25, 1956. 2. Margolis, H. M., *et al.* *J.A.M.A.* 158:454, June 11, 1955. 3. Bollet, A. J., *et al.* *J.A.M.A.* 158:459, June 11, 1955.

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General Surgery, One Week, October 22
Thoracic Surgery, One Week, October 1
Esophageal Surgery, One Week, September 24
Breast & Thyroid Surgery, One Week, October 22
Gallbladder Surgery, 3 Days, October 29
Fractures & Traumatic Surgery, Two Weeks, October 15

GYNECOLOGY & OBSTETRICS—Obstetrics & Gynecology, Three Weeks, October 22
Office & Operative Gynecology, Two Weeks, September 17
Vaginal Approach to Pelvic Surgery, One Week, September 10

MEDICINE—Electrocardiography & Heart Disease, Two Week Basic Course, October 8; One Week Advanced Course, September 17
Internal Medicine, Two Weeks, September 24
Gastroscopy & Gastroenterology, Two Weeks, September 10
Gastroenterology, Two Weeks, October 22
Dermatology, Two Weeks, October 15
Cardiology (Pediatrics), Two Weeks, November 5

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at Mercy Hospital, Des Moines, joined **Dr. V. H. Carstensen** in practice in Waverly on July 1.

On June 12, in Chicago, **Dr. Walter L. Bierring,** of Des Moines, head of the Division of Chronic Diseases of the Iowa State Department of Health, received the AMA's gold medal and citation for distinguished service in public health and medical examination work.

Dr. Bierring was president of the Iowa State Medical Society in 1908; president of the AMA in 1934-35; professor of pathology and bacteriology at SUI from 1893 until 1903, and professor of medicine there from 1903 until 1910; Iowa commissioner of health for 20 years; and secretary of the American Federation of State Examining Boards for upwards of 50 years.

Mr. Lloyd L. Wagnon has been made executive director of the Iowa Heart Association, according to an announcement made by the organization's president, **Dr. James W. Culbertson,** head of the Cardiovascular Laboratory at SUI. Mr. Wagnon holds an MA in health education from Indiana; he has been director of public relations and postgraduate education at the University of Nebraska; and for two years he was executive director of the Nebraska Heart Association.

Dr. James Devine, of Whittemore, has been sent overseas as medical commander of the Western Pacific Amphibian Forces.

Dr. George E. Bartlett, his hometown newspaper reports, has been spending considerable time doing research work for a medical history of New Sharon and its vicinity.

At the May 22 meeting of the Black Hawk County Medical Society, **Dr. Robert Good,** of the University of Minnesota, spoke on "Agammaglobulinemia and Hypogammoglobulinemia in Pediatric Practice."

On June 6, the Johnson County Medical Society held its annual picnic at the home of **Dr. George C. Albright,** in Iowa City.

Dr. John A. McFarlane joined **Drs. L. E. Pierson** and **E. M. Honke** in the practice of urology at Sioux City on June 1. Dr. McFarlane is a medical graduate of Washington University, St. Louis, has served in the Air Force, and has finished a fellowship in his specialty at the Mayo Clinic.

Dr. M. H. Dubansky's medical bag was stolen from his car at the Iowa Methodist Hospital parking lot, in Des Moines, on the night of June 9-10. Aside from a stethoscope and assorted supplies

and equipment, it contained some barbiturate capsules. It was on that night that a daughter was born to the Dubanskys.

The Selective Service headquarters in Des Moines has given a certificate to **Dr. C. V. Edwards**, of Council Bluffs, in recognition of five years' service.

The Scott County Medical Society has presented a copy of the new edition of the AMA Directory to the Davenport Public Library.

The Association of State and Territorial Public Health Directors has chosen as its new president **Dr. I. H. Borts**, of Iowa City, director of the State Hygienic Laboratories.

At the Iowa State Medical Society's second annual Senior Day, at the SUI College of Medicine on May 26, the speakers were **Drs. L. E. Frink**, of Reinbeck; **E. H. Files**, of Cedar Rapids; **J. H. Sunderbruch**, of Davenport; **S. P. Leinbach**, of Belmond; **W. C. Eller**, of Waterloo; **O. N. Glesne**, of Fort Dodge; **Fred Sternagel**, of West Des Moines; and **Mrs. D. H. King**, of Spencer.

During its recent meeting in Montreal, the American Otological Society chose as its vice-president **Dr. Dean M. Lierle**, head of the Department of Otolaryngology at SUI. It has become customary in that organization for the vice-president to be, in effect, president-elect. Dr. Lierle also received the 1956 Newcomb Award of the American Laryngological Association, for distinguished teaching and research. The latter group, which has a strictly limited membership, held its meeting at the same place and time.

Dr. L. E. Hooper, of Indianola, was hospitalized at Mercy, Des Moines, for three or four weeks of rest and observation late in May.

Dr. George Scanlon, of Iowa City, chairman of the ISMS Board of Trustees, and **Dr. Ruben Flocks**, head of the Department of Urology at SUI, were the guest speakers at the annual invitational medical meeting at Storm Lake on May 24.

On May 28, **Dr. Dean H. King**, of Spencer, underwent major surgery at St. Mary's Hospital, in Rochester, Minnesota. Twelve days later, he was well enough to go to Chicago for the AMA meeting.

Dr. Billy Grimmer, who has been associated in practice with **Dr. S. Dale Porter** at Grinnell during the past two years, opened an office on June 1 for solo practice there.



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In appreciation of the 45 years of service that **Dr. Francis P. Cauley** has given to the community of Anthon, his fellowtownsmen gave a dinner in his honor on May 27. So that all of the people who wished to attend might be accommodated, the meal had to be served simultaneously in the assembly halls of both the Catholic and the Methodist churches.

Dr. Hugh Geiger, who practiced during the past year at Whittemore and before that, quite briefly, in the Beaverdale district of Des Moines, moved to East Point, Georgia, at the end of May.

Dr. Ada Perel, director of psychiatry at Broadlawns-Polk County Hospital, has opened an office for the private practice of neuropsychiatry at 939 Insurance Exchange Building, Des Moines.

Two professors from the SUI College of Medicine addressed the annual meeting of the Minnesota Medical Association, in Rochester, late in May. **Dr. F. H. Top,** head of the Department of Hygiene and Preventive Medicine, delivered the Northwest Pediatric Society lecture on "The Changing Character of Infections as a Result of the Era of Chemotherapy," and **Dr. P. J. Leinfelder,** professor of ophthalmology, spoke on "The Importance of the Diagnosis of Glaucoma" at one of the general sessions.

Dr. Wilbur Miller, a professor of psychiatry at the SUI College of Medicine, is reported to have told an audience of Rotarians in Iowa City on May 17, "Money and buildings won't promote mental health."

Instead, or in addition, he contended, long-range planning is needed to bring medicine and psychiatry into one training program.

Dr. and Mrs. Walter Kirch, of Des Moines, escaped serious injury despite being thrown from their car in a collision on U. S. Highway No. 30 near Vinton, on May 17.

Dr. Donald C. Conzett, of Dubuque, attended **President Eisenhower's** Conference on Occupational Safety, in Washington, D. C., in mid-May.

Dr. S. W. Corbin, of Corydon, was hospitalized there on May 15, following a heart attack.

Dr. George B. Crow has given up his job of teaching materia medica to the student nurses at

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*Modell, W.: The Relief of Symptoms, Philadelphia, W. B. Saunders Company, 1955, pp. 265-266.

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Burlington Hospital after spending 40 years at the task. He will continue in private practice.

Dr. William A. Fisher, of Creston, has been elected a fellow of the American Academy of Pediatrics.

One of the guest speakers at the SUI postgraduate short course in allergy on May 24 was **Dr. Lawrence J. Halpin,** of Cedar Rapids.

Dr. Dean H. King, of Spencer, participated with several Mayo Clinic physicians in a panel discussion that was shown to the annual meeting of the Minnesota Medical Association by closed-circuit television.

Dr. L. H. Prewitt, of Ottumwa, has been elected to membership in the New York Academy of Sciences, and has been invited to deliver two lectures next fall at the annual meeting of the Academy of Ophthalmology and Otolaryngology, in Chicago.

Dr. A. E. Berry, an EENT specialist who practiced during the preceding six months in Oskaloosa, opened a practice in Newton on May 23.

DEATHS

Dr. Kenneth Lawrence Johnston, 64, of Oskaloosa, died of cancer on June 9 at the Mahaska County Hospital there. He was a member of the American College of Surgeons.

Dr. William B. Mantle, 83, of Albion, a Life Member of the Iowa State Medical Society, died at his home on May 17, three days after suffering a heart attack.

ROSTER OF IOWA PHYSICIANS IN MILITARY SERVICE

As of June 10, 1956

Ackerman, J. H., Clarksville (Jacksonville, Florida) ..... A.U.S.
Bateman, R. D., Iowa City
(Keesler Field, Mississippi) .....Capt., U.S.A.F.
Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego, Calif.) .....Lt.(j.g.), U.S.N.R.

Day, R. T., Hampton
(18th THC Hospital, APO 123, New York)
.....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Dieckman, M. R., Grundy Center
(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Geist, James H., Iowa City .....
Gleeson, J. J., Vail
(Fargo, North Dakota) .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Goplerud, C. P., Iowa City
(U.S.A.H., Albuquerque, New Mexico) .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
.....Capt., A.U.S.
Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Hastings, R. A., Ottumwa
(U.S. Naval Hosp., Pensacola, Florida) .. Lt., U.S.N.
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Hodges, R. E., Iowa City
(Silver Spring, Maryland) .....Capt., A.U.S.
Hogenson, G. B., Eagle Grove
(Navy Center, Omaha, Nebr.) .....U.S.N.
Howe, G. W., Iowa City
(Grosse Isle, Michigan) .....N.A.S.
Johnson, W. A., Emmetsburg
(Corona, California) .....Lt., U.S.N.R.
Johnston, T. L., Iowa City
(Qtrs. 12, Warren AFB, Cheyenne, Wyo.) .....
Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Koptik, George, Jr., Garwin
(Camp Lucas, Sault Ste. Marie, Mich.) .....
Lake, Carlton B., Sumner
(Ft. Sam Houston, Texas) .....A.U.S.
Larson, Gerald E., Elk Horn
(A.P.O. 856, New York, N. Y.) .....Capt., U.S.A.F.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.
McCoy, John T., Cedar Falls
(U.S. Naval Hosp., Philadelphia, Penn.) Lt., U.S.N.R.
McFadden, F. Ross, Davenport
(Corpus Christi, Texas) ....Lt. Commander, U.S.N.
Marme, George W., DeWitt .....U.S.A.F.
Meyer, Paul G., Manchester
(APO, New York) .....Capt., A.U.S.
Montgomery, A. E., Jefferson
(Phoenixville, Pa.) .....Lt. Col., A.U.S.
Olsen, Max, Minden
(66 N. Oak St., Trfwy, Kansas City, Mo.) Lt., U.S.N.
Olson, Stewart O., Des Moines
(Seattle, Washington) .....Lt., USN
Powell, Robt. M., Iowa City
(U.S.A. Hosp., Ft. Hood, Texas) .....Capt., A.U.S.
Rodgers, G. H., Mt. Ayr
(Brooke Army Hosp., Ft. Sam Houston, Texas)
.....Lt. A.U.S.
Rogers, Edward A., Anamosa
(U.S.P.H.S. Hospital, Seattle) .....
Sacco, Severino O., Iowa City
(Phoenixville, Penna.) .....
Saunders, R. J., Colfax
(Detroit, Michigan) .....1st. Lt., U.S.A.F.
Sear, John, Alden
(Box 6254, Fitzsimons Army Hosp., Denver 8)
.....1st Lt., A.U.S.
Sears, Richard H., Iowa City
(Washington, D. C.) .....Lt., U.S.N.R.
Severson, Wayne L., Slater
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Thomas, Gary L., Des Moines
(Randolph A.F.B., Texas) .....U.S.A.F.
Thompson, J. W., Ames
(Camp Breckinridge, Kentucky) .....Capt., A.U.S.
Trosman, Harry, Iowa City
(Camp Pendleton, California) .....U.S.N.R.
Turner, R. M., Armstrong
(11th Field Hosp., APO 178, New York City)
.....Capt., A.U.S
Winter, F. D., Burlington
(Elmendorf A.F.B., Anchorage, Alaska) ...U.S.A.F.
Workman, R. D., Ruthven
(Deep Sea Divers, Naval Gun Factory, Washington, D. C.) .....Lt., U.S.N.

EVALUATION OF FOREIGN DOCTORS IN THE U. S.

At a recent meeting, the AMA Board of Trustees approved the long-sought program for evaluating foreign medical school graduates that had been prepared by a Cooperating Committee on Graduates of Foreign Medical Schools, composed of representatives of the AMA, the Federation of State Medical Boards, the AHA and the Association of American Medical Colleges.

The program is designed to establish two important requirements for foreign medical graduates who wish to undertake internships or residencies here, or to take any other sort of position which will involve their giving medical care to the American public. Those requirements are (1) The medical credentials that each presents must clearly indicate that he was graduated from a bona-fide medical school, (2) By examination, a foreign medical graduate must demonstrate that he has medical knowledge equivalent to that demanded of graduates of schools in the United States.

It is planned that this evaluation service will be established within an independent organization that will be under the direction of all four sponsoring organizations. It is hoped that the service can be started within the next year.

There has been a continuing influx of foreign-trained physicians for a long time. At present, more than 6,000 such doctors are here on temporary visas serving as interns or residents, half of whom entered during the past year. All of them are supposed to return home following the completion of their training. In addition, there are another 1,000 who are entering the country each year to locate permanently, though that number includes some American citizens who are returning after completing their medical education abroad.

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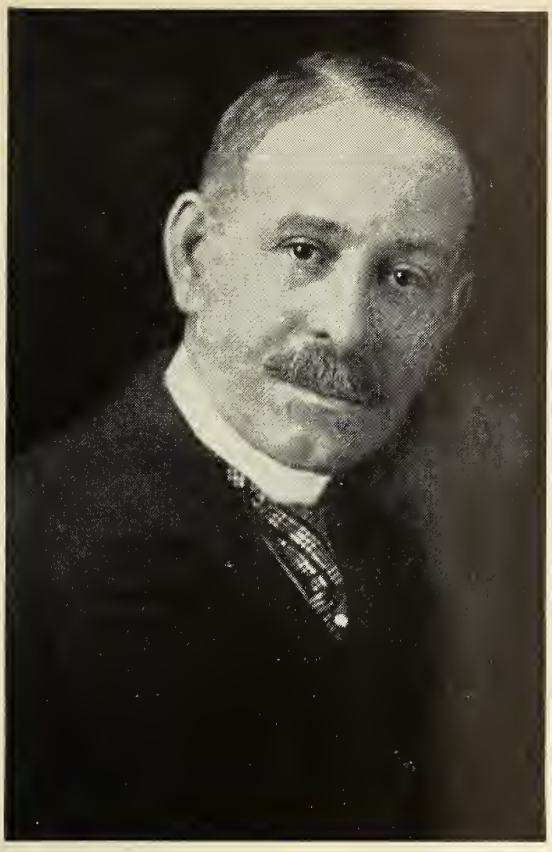
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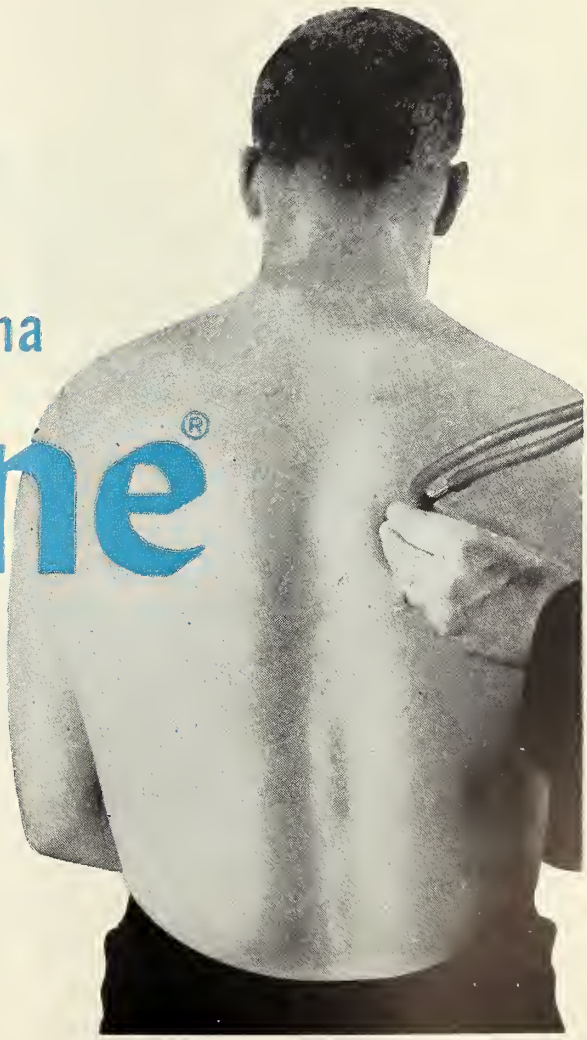
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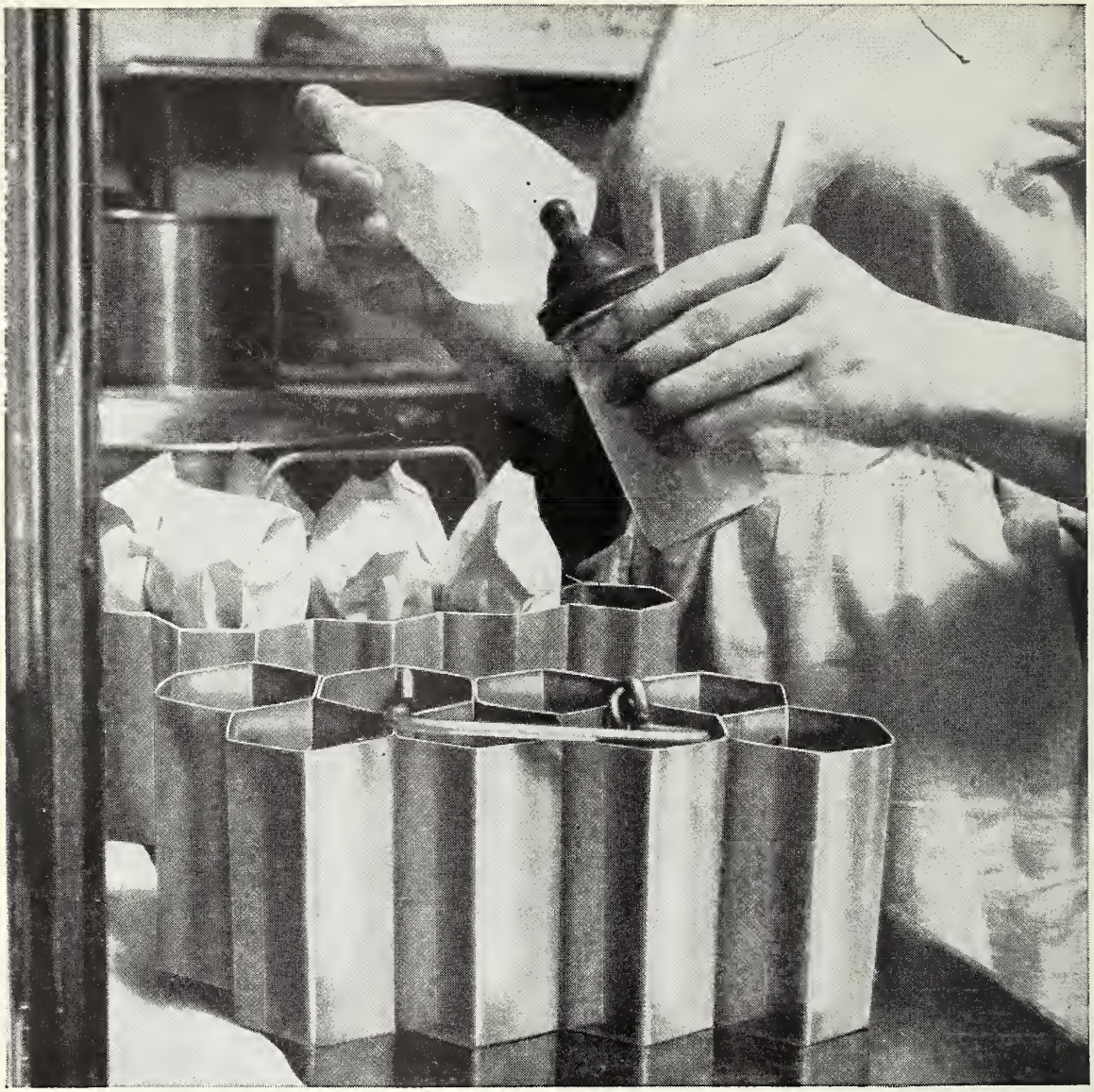
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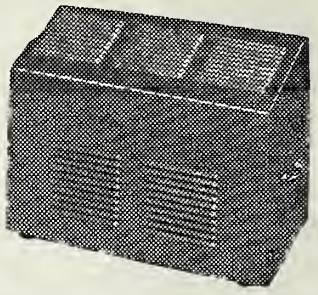
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*Moyer, J. H., and others:
J. Chronic Dis. 2:670, 1955.

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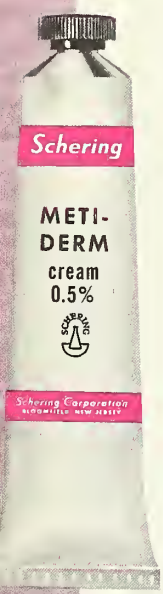
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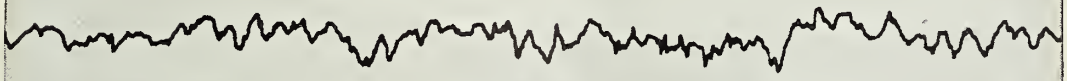
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Preserving the GP's Hospital Staff Privileges

JOHN S. DeTAR, M.D.

MILAN, MICHIGAN

THE RECENT DECISIONS of the House of Delegates of the AMA affecting the general practice of medicine are sound ones, and I believe they are in keeping with the best medical interests of the American people.

The picture was this: While the outstanding general practitioner was being put upon a public pedestal for worshipful acclaim, that same generalist was being told by his hospital staff that his usefulness was ending, that his hospital practice must be curtailed and that the services he has been rendering must henceforth be performed by specialists—indeed that he had no place at all on a hospital staff!

With a public crying for more family physicians, the number entering the general practice of medicine was dwindling annually. In fact, it had declined to 18 per cent of the class of 1950. With a surplus of general surgeons and a shortage of general physicians, the percentage of residents engaged in specialty training had risen to 98 per cent, and the percentage of those training for general practice had fallen to 2 per cent. In the face of the obvious need for more high-quality rotating internships, only 5 of the 80 medical schools were sponsoring them. Though all of those institutions paid lip service to general practice, only two of the 80 were operating separate departments of general practice.

Hundreds of medical students, viewing the situation, were selecting their specialties before graduation, completely bypassing the general practice of medicine. The picture was not pretty, but it was real. It was obvious that something had to be done. The question was what it should be.

GENERAL PRINCIPLES

Despite the generally unpromising outlook, it must be recognized that certain broad, basic philosophies are rather generally accepted by all members of the medical profession. For example, it is almost universally recognized that the generalist and the specialist each has a definite role in the care of the patient. It is acknowledged that the generalist brings to his patient certain knowledge and technics which the specialist does not have. It is clearly conceded that in specializing and focusing his interests, the specialist has lost the broad perspective which the generalist still maintains.

This breadth of perspective does not necessarily find its true mode of expression in a multiplication of technics, but rather in the performance of the general practitioner as truly the family physician, the family counselor and the diagnostician—really as the captain of the medical-team plan for the family as a whole. It is the role of the generalist to administer care for all types of cases up to the limits of his professional competence. It is his job to discern when the patient is in need of the services of a specialist, and then, with the help of a specialist, it is his role to carry out the management of the therapy.

It is generally conceded that the well-trained generalist is qualified to manage the great majority of the problems that he confronts and to manage them better than can the specialist. Conversely, at the same time, it is realized that medicine has become so complicated that it is absolutely mandatory that the patient have at his disposal the services of physicians who have limited their attention to certain specialty fields and are experts therein. I think we can say also that it is universally accepted that the cooperation of those two types of physicians, the generalist and the specialist, is a necessity for modern medical care.

Conflict, however, between the interests of the generalist and the specialist has, during the past generation, gained the ascendancy over the union of those interests. We can see it in the rapid growth of specialization. We see it in the absolute as well as relative decrease in the numbers of generalists. We see it in the selection by medical students of specialties before graduation, and in the selection of specialties by interns before residency. We see it in the strangling of the generalist by hospital snafu, and even in his total exclusion from hospital staff membership.

Taking note of these developments, the AMA House of Delegates, meeting in Boston on December 1, 1955, took action—action which is certain to exert a profound effect on the nature of the practice of medicine for the next generation.

AMA ACTION PRIOR TO DECEMBER, 1955

Let's go back and take it step by step. You remember the highly inflammatory publicity to which the medical profession was being subjected three years ago in the national magazines. Some

Dr. DeTar is president of the American Academy of General Practice.

of the articles were entitled "Some Doctors Should Be in Jail," "Too Much Unnecessary Surgery," "Patients for Sale" and so forth. Those articles resulted in the presentation of 11 resolutions of condemnation on the floor of the House of Delegates of the AMA.

That was in December, 1953. The result was the formation of the Committee on Medical Practices of the AMA. That Committee worked for a year and spent $14,000 of your money conducting surveys, interviewing doctors and interviewing patients. The Committee came up with some forthright recommendations, one of which was that the AMA "should use its full influence to discourage arbitrary restrictions by hospitals against general practitioners as a group, regardless of their qualifications as individuals."

The Board of Trustees of the AMA studied the report for a year, and in June, 1955, made certain recommendations thereon. The Board completely bypassed the passage that I have just quoted, the one in which the Committee had called for the discouragement of arbitrary restrictions by hospitals against generalists. That omission was considered a grave oversight by some of the delegates—those who oppose the closing of a subject by adding just another study and report to the archives without definitive action.

The members of the House of Delegates of the AMA were not provided with copies of the report of the Committee on Medical Practices, even though it had been they who set up the Committee and financed it with AMA funds. The chairman of the Board explained that the Board had had no intention of withholding the text, but considered some of the text unsuitable for public quotation. In other words, the explanation was that the text had been suppressed in the interests of American medicine.

Now let it be said right here that the AMA Board of Trustees consists of some of the most highly regarded members of the medical profession. They are selected with great care by the delegates, who themselves are selected with great care by their state medical societies. The members of the Board of Trustees are hard-working, sincere, devoted servants of the medical profession, and though their toil is too often unappreciated by our rank and file, their decisions are never regarded lightly. But the House of Delegates is never a rubber stamping body, and that's a healthy situation, too. The House did not accept the recommendations of its Board of Trustees in this instance, and furthermore, it asked that each of its members be furnished a copy of the controversial report.

Now remember that this was in June last year. During July and August, the entire report of the Committee on Medical Practices was published in several medical periodicals. The lay press had a few words to say—in the main, complimenting the medical profession for tackling a knotty problem. Some publicity was adverse, like the article in LOOK magazine, but for bad public relations that article can hardly be classed with "Patients for Sale" or "Some Doctors Should Be in Jail."

The whole question was to come up for decision in the AMA House of Delegates' meeting at Boston in December, 1955. Now it must be borne in mind that the most controversial point proposed by the Committee on Medical Practices was the recommendation that the AMA use its full influence to discourage arbitrary restrictions by hospitals against general practitioners. This was the focus of great interest for the 60,000 or more members of the AMA who are engaged in the general practice of medicine. The Committee had asserted that arbitrary restrictions existed, but it had failed to document the statement.

THE AAGP'S SURVEY OF THE PROBLEM

Believing that the lack of specific examples would be called to attention in Boston, the American Academy of General Practice went into action. Its Commission on Hospitals decided to investigate for the purpose of determining whether arbitrary restrictions were a fact or were a figment of the imagination. So in August—this was August, 1955—a questionnaire was sent out to the officers of the state chapters of the AAGP who should have the facts at their fingertips. The response was amazing. Overnight, 170 affidavits reached the Academy headquarters. The testimony included names of patients and names of hospitals, and it cited specific instances of restriction or exclusion of generalists in hospital staff organization.

These examples were put together in a paper which demonstrated rather conclusively the trend toward universal specialization. It demonstrated gradual but steady exclusion of the generalist from hospital staff privileges and hospital staff membership. It demonstrated the steady decline in the numbers of young physicians entering general practice. In fact, it drew a composite picture highly prophetic of the demise of general practice and of the end of the generalist as a family physician. Copies of that paper were sent to the members of the AMA House of Delegates, for in the AMA House of Delegates every effort is made to provide advance information necessary to prepare members for making intelligent decisions.

Some of the experiences reported in that paper were rather shocking. From North Carolina, for example, a young doctor wrote that he had had one year of residency in anesthesiology, and yet in his hospital he was prevented from giving even an ether anesthetic because he was not a diplomate in anesthesiology.

From Virginia came this story: One of the young doctors had asked for privileges in general medicine, including medicine, pediatrics, obstetrics and minor surgery including fractures. The reply which he received from the chief of staff

of that hospital said, "Our own interpretation of general medicine does not include such specialties as pediatrics, obstetrics or any of their sub-specialties."

What then, I ask you, *is* the general practice of medicine?

In a Detroit hospital there is a sign which says, "No referring doctor may enter the operating room during an operation unless as a consultant, in an emergency, or as an interested party in an unusual case." Now there's something wrong with a picture like that!

From Newark, New Jersey, comes this story: A generalist cannot do a simple episiotomy, or rupture membranes without permission of the *resident*—not even the attending obstetrician. Now, I ask you, what intern viewing a situation such as that and seeing that type of limitation would even consider entering the general practice of medicine?

From Richmond, Virginia, comes this tale: "Daily, the generalist must turn over his emergencies to a specialist in order to get beds for his patients."

One of my friends from Detroit was asked to come to the emergency room of his hospital and put a piece of adhesive tape on the chest of one of his patients who had had an uncomplicated fracture of the ribs. He was told by the supervisor of nurses that he would have to call the orthopedic surgeon to put on the tape because the case was one of fracture, and the rules of the hospital required that all fractures be repaired by orthopedic surgeons. In the same hospital, a different physician was told that he would have to call the same orthopedic surgeon or another one to apply a splint to an uncomplicated fracture of the middle phalanx of the middle finger.

In one of the hospitals in Baltimore, a generalist may admit patients either below the age of 12 or above the age of 12, but not both. Now what is the logic of that rule? In the same hospital, simple lacerations cannot be sutured or abscesses opened in the emergency room. The generalist must call a Board surgeon. In one of the hospitals in Orlando, Florida, the privilege of using outlet forceps was withdrawn from generalists who had not received prior consultation—*outlet* forceps!

In Manhasset, New York, the generalist and the obstetrician can no longer do circumcisions on the babies they deliver. They must call upon the urologist to perform this complicated operation. What does this mean in terms of cost? I think it's obvious what it means in terms of absurdity.

Here's another interesting story: In Cottonwood, Arizona, one of the generalists applied for staff membership. The chief of staff asked him, "Don't you know that this is a closed corporation?"

In Pittsburgh, one of the young men interned at Mercy Hospital, and when he was through, he applied for staff membership. He was refused on the grounds that Mercy Hospital did not accept general practitioners as staff members. So he applied at the South Side Hospital. There, he was refused because he had not interned there. Thus, the young man was excluded from both hospitals. It's only too obvious why interns shun the general practice of medicine.

One could go on, and on, and on. Many hospitals do not have even one generalist on their staffs. There are 23 such institutions in Massachusetts alone. Now, do you think these examples are shocking? Do you think they are exceptions to the rule? Since publication of the AAGP's summary, hundreds more such instances have been reported, each more shocking than its predecessor, proving beyond question that the AMA's action of December 1, 1955, was appropriate, that it was due (if not overdue) and that it is vital to the survival of the general practice of medicine.

These are examples of super limitation and exclusion, but they're not isolated, and they're not rare. We are dealing here with a widespread malady which threatens to continue growing. And when you stop to think of it, the cost of medical care is intimately related to the question of whether the hospitalized patient is shunted from specialist to specialist without the supervision of the family physician who knows him best, or whether the personal physician is allowed to supervise his care, utilizing specialty consultation when necessary, but exercising the guiding hand of control over the patient's medical and financial interests and providing continuity of medical attention. And there is no question in my mind that this proper supervision of the patient helps to hold down the total cost of his illness and thus to stave off government control of medical care. Thus, the maintenance of proper privileges for the generalist become the problem and the interest of all medical groups—specialist and generalist alike.

I feel that the thinking public will stand for just so much. And from every point of view—that of sound medicine, that of sound economics—the general physician must be integrated into the modern hospital organization. There must be some *middle ground* between unlimited, uncontrolled, unchecked low-quality hospital practice and the absurdities of exclusion and limitation. The American Academy of General Practice has never defended privileges for the incompetent. There is no reference in the Academy's manual on hospitals to privileges for those who are not able and are not qualified for those privileges. The manual stipulates that the general practitioner shall be evaluated on the basis of his individual training, judgment, skill and results. For this status the Academy will continue to fight!

THE POLICY ADOPTED BY THE AMA HOUSE OF DELEGATES

But let's get back to the AMA House of Delegates. The AAGP's paper summarizing abuses

was studied by the delegates. Certain recommendations of far-reaching import had been made in the paper, and two resolutions were introduced in the AMA House, one from Michigan to reinforce the rather conservative recommendations that had been made by the AMA Board of Trustees, and the other from Colorado, which was introduced by a member of the American College of Surgeons and which placed squarely before the House of Delegates the problem of preserving the general practice of medicine.

The explosion came in the reference committee, when, on November 29, testimony was offered by 44 doctors. The chairman of the reference committee, Dr. Lewis Alesen, a surgeon from California, conducted a very fair and square inquiry, and of the 44 men who testified, 43 spoke in favor of some portion of the proposals. Over 200 spectators listened. Decrying the practices of arbitrary limitation and exclusion were urologists and surgeons and anesthesiologists and internists and generalists. It was very obvious that here was no controversy between surgeons and generalists, between the College of Surgeons and the Academy of General Practice. Here was demonstrated a united effort to put the American Medical Association squarely on the line to preserve the general practice of medicine.

I should like to quote just a little from the report of the reference committee: "It was never intended that staff appointments of hospitals generally, or even of hospitals approved for residencies, should be limited to board certified physicians as is now the policy of some hospitals. Such policies if practiced extensively are detrimental to the health of the American people and therefore to American medicine. Hospital staff appointments should depend on the qualifications of physicians to render proper care to hospitalized patients as judged by the professional staff of the hospital and NOT on certification or specialty society membership." This idea has also been endorsed by the Joint Commission on Accreditation of Hospitals.

The reference committee's report then proposed the following resolution: "Resolved, that a continuing Committee on Medical Practices be created in the American Medical Association to conduct a study of the relative value of diagnostic, medical and surgical services and to report its findings and recommendations to this House in the same manner as is now provided for other committees and councils of the Association."

Thus, I should like you to observe, the reference committee asked that the Committee on Medical Practices be made a permanent committee, to report twice a year to the House of Delegates on medical practices, medical services and medical fees.

The next part of the resolution proposed by the reference committee read as follows: "Resolved that this Committee shall consist of five members of the House appointed by the speaker, three of whom shall be general practitioners." I recall no such stipulation in any resolution in the House of Delegates in many years—one requiring that three of a committee of five must be general practitioners.

Here's the next phrase: "Resolved that this Committee shall be directed to utilize all possible means to stimulate the formation of a department of general practice in every medical school." Now, this is getting to correction at the source. You must understand that right now there are only two such departments, one at Tennessee and one at Mississippi, and this "Resolved" directs that all possible means be used to stimulate the formation of a department of general practice in *every* medical school.

The next part of the reference committee's resolution says: "Resolved that the American Medical Association approve of the medical school teaching programs which afford the medical student opportunity for experience in the general practice of medicine." Of course this refers to preceptorships, and although there are 24 medical schools that have preceptorship programs at the present time, only one-seventh of our medical students are thus given that privilege, for many of the 24 are among the smaller schools.

Now observe the next phrase, for it has teeth: "Resolved that the representatives of the American Medical Association in the Joint Commission on Accreditation of Hospitals be instructed [Note that it doesn't say *advised;* it says *instructed.*] to stimulate action by that body leading to the warning, the provisional accreditation or the removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class, regardless of their individual professional competence, after appeal to the Commission by the county medical society concerned." Note the technic prescribed. It requires the warning or the removal of accreditation from any hospital which arbitrarily restricts hospital privileges, if an appeal has been made by the county medical society concerned. That's a very interesting provision—with teeth.

And the last part of the resolution directs the Committee to "assist the Public Relations Department of the American Medical Association to present a program of public education designed to bring about a better understanding of all fields of medical practice." This means the relative value of diagnostic and general medical service. And then this Committee again—it's repeated—is directed to "use its full influence to discourage any arbitrary restrictions by hospitals against general practitioners as a group or as individuals."

The final section of the resolution directs "that a copy of this resolution be sent to the American College of Surgeons, Physicians, Pediatrics and Obstetrics, the Catholic Hospital Association, the

(Continued on page 455)



A Psychiatrist Looks at

Problems Common to all Medical Practice

HUGH T. CARMICHAEL, M.D.

CHICAGO, ILLINOIS

When the practitioner of modern, dynamic psychiatry considers the problems common to all medical practice, he puts emphasis not only upon the physiologic and anatomic characteristics of patients and upon the physical environments that surround them, but also upon the psychological, emotional and social factors in their illnesses and in the treatment that is being given them.

The basic approach of modern psychiatry to the problems of human health and illness is a broad, comprehensive, conceptual one which encompasses a larger perspective than has heretofore been adopted by the majority of physicians. For the most part, other doctors have taken a relatively narrow point of view which may be called the "somatic approach"—one which excludes psychological and social influences from serious consideration. The psychiatrist's viewpoint, which may be called the "psychosomatic approach," demands not only that psychological and social factors shall be taken into account, but that they shall be given a status equivalent to that of the physical and chemical in the study of human behavior.

If one thinks of the human being as a person in a particular social and environmental setting, and if he recognizes that not only physiological but psychological processes are at work in him, producing their respective sorts of phenomena, he has no difficulty in accepting the necessity for this broader approach. The procedure must then, of course, include psychological and sociological methods of study, in addition to the physical, chemical and physiological ones to which every physician has been accustomed.

From the beginning that I have made, perhaps my readers are beginning to think that I am setting out to discuss psychosomatic medicine, or to talk about psychiatry as a medical specialty. But that is not my purpose. What I wish to do is to emphasize the importance and usefulness of this broad approach to the problems of diagnosis and treatment. I would even ask that *all* doctors approach their patients as persons first, and only secondarily that they regard their patients as people who have this or that complaint or illness. In other words, I should like them to quit regarding them merely as cases or as interesting problems in pathology, and that they stop speaking, or even thinking, of any of them as, for example, "the appendix in Room 462."

The origins of these attitudes which I have just deplored are readily ascertained when it is recalled that until recently, medical students were not taught methods for evaluating or dealing with psychological or sociological factors in their patients. By precept and example, they were trained, instead, to regard psychological and social data as irrelevant, and they often were taught that if no organic pathology was discoverable, the patient wasn't really sick, but only *thought* he was. Thus it is no wonder that many physicians have felt frustrated and baffled when they could find no organic pathology in their patients, or that on finding nothing physically wrong, they could think of nothing to do other than to offer placebos, platitudinous reassurances or the admonition "Forget about it." Despite the fact that, by conservative estimate, 50 per cent of all patients show no or-

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ganic pathology, physicians had been trained as students to react in this way.

Since the end of World War II, medical education has made great strides in remedying this defect in teaching. Although most of the improvement has been accomplished by teachers of psychiatry, there has been a gradually increasing acceptance by other medical educators of the fact that social and psychological influences are valid and of as great importance as biochemical, physiologic and anatomic influences in most illnesses, and are of greater importance in many of them. Only when medical students have been indoctrinated with such attitudes will one find any major change in physicians' approach to their patients and see in a real sense the practice of what has been called "comprehensive medicine."

Thus we come, naturally, to a consideration of the relative merits of general practice and specialization in medicine, to which a great deal of attention is currently being devoted—as witness the address that Dr. John S. DeTar, president of the American Academy of General Practice, delivered at the annual banquet of the Iowa State Medical Society on April 24, 1956, and which is published elsewhere in this issue of the JOURNAL. I do not wish to seem to take sides in the argument between the generalists and the specialists. But I should like to say that in my experience during the past 30 years, it has been the specialist who has seemed more inclined to develop a narrow viewpoint in terms of his own particular field, with the result that he has failed to give sufficient consideration to anything outside that circumscribed area. He has seemed, indeed, to develop a "trained incapacity." Thus, for example, a doctor whose interests are concentrated primarily in the functions of the gastrointestinal tract may pay but cursory attention to the other organs and organ systems, to say nothing of neglecting to consider the patient as a whole.

At this point, I should like to interject that I am not opposed to specialization in medicine, nor do I believe that it necessarily leads to a "trained incapacity" for considering anything outside of one particular field. I am convinced that specialization and specialists have a place in medical practice. But I think that the specialists have shown themselves especially inclined toward the myopia to which I have been referring.

I turn now to the topic to which I wish to devote most of my attention in this paper—that is, the doctor-patient relationship and the paramount importance of the doctor's having a clear understanding of it, not only in terms of the patient's behavior, but also in terms of his own. For many years the medical profession has made a great deal of the sacredness of the doctor-patient relationship, and indeed it has become almost a shibboleth among physicians, especially when they feel that they have been put on the defensive. But although in an intuitive way they recognized its importance, it has been my impression that they have not realized its real significance.

At the beginning of my discussion of the topic, I shall fall back upon a method of approach which I have used over the past 15 years in my lectures to medical students in the presentations I have made to various groups of such subjects as the psychosomatic approach, psychotherapy and principles of treatment.[1, 2]

It is my conviction that the primary function of the physician is the treatment of each patient in such a way that the patient is helped insofar as practicable to attain a state of well being. To reach this goal, he uses various resources. What are those resources? Most physicians would say that the doctor uses, first, the knowledge he has gained during his medical education—knowledge of the structure and function of man in action. Second, they would say, he uses the technics of examination which have been taught him; and third, he uses the methods of treatment advocated and currently accepted for application to various illnesses. At this point another question might be asked: "How does the doctor go about applying these principles and technics in treating particular patients?" Most of us would answer that, first, he takes the patient's history, then he does a physical examination to determine his physical condition, then he makes an estimate of his general behavior and personality makeup, next he carries out the indicated laboratory procedures and special tests, then he evaluates the evidence he has obtained in these various ways, and finally he makes a tentative clinical diagnosis and estimates the severity of the illness and the probabilities of response to treatment. Thereupon, he decides upon the treatment suitable to the illness of the particular patient and proceeds to carry it out, observing all the while, the responses of the patient to the course of therapy.

THE DOCTOR IS A PART OF EACH OF HIS TREATMENTS

At first glance or hearing, most of you, I believe, would be reasonably well satisfied that the answers just given contain no important omissions. But if you will examine the answers carefully, you will observe that no direct mention has been made of the most important of all the doctor's resources—namely, the doctor himself. It is he who carries out all of the activities described.

The efficacy of treatment is mainly dependent upon the quality of the doctor who applies it and the efficiency with which he does his work. This idea might be phrased in another way: that any method is only as good as the man who uses it. In speaking of mechanized processes of various sorts, we are accustomed to say that performance depends not alone upon the perfection of the apparatus but, even more, upon the quality of the man who uses it. The human element is even more

important in medicine, and it is well for us to remember that the physician is no less human than is the patient.

The quality of the doctor cannot be overestimated. His influence upon the effects of treatment far outweigh the role of the various technical procedures which he employs, regardless of whether he is a general practitioner or a specialist. This, of course, is particularly true when the treatment consists mainly or entirely of psychotherapy, which may briefly be defined as treatment by psychological means.

It is still not uncommon to hear complaints from physicians that a patient did not respond to treatment, even though it was "properly" carried out—as if it were the patient who was to blame. Such an attitude has been caricatured in the statement, "The operation was successful, but the patient died." At times, the method that has been employed is itself blamed for the failure of treatment. I don't mean to imply by these comments that no importance is to be attached to the kind of patient and the kind of illness, or that the choice of method is unessential. Quite the contrary. I make them to emphasize the fact that the doctor is himself an important constituent of whatever treatment he may undertake. He may apparently do and say the right things to a patient, but unless he has the attitude appropriate to the particular patient at the particular time, the results are likely to be unsatisfactory. This principle might be stated in another way: that the treatment must be fitted to the patient, not the patient to the treatment.

The stress which I have placed upon the quality of the physician is sure to evoke the question, "What are the qualities that the doctor must have in order to assure good results from the treatment he administers?" I would attempt to answer that question by saying that ideally he should be a mature person, one whose emotions do not tend to overcome his self-control, one who can avoid displaying feelings like anger, fear, sexual desire, domineering attitudes, dislike, over-sentimentality and guilt. He should be the sort of person who has an objective but friendly and firm attitude. He should understand his own personality makeup; he should be interested in helping his patients; he should be non-critical; and he should be able to refrain from passing moral and ethical judgments on his patients. It is unlikely that all of us possess every one of these qualities to an outstanding degree. Nevertheless, I feel that we should try to be kindly, interested, objective, non-critical, non-judging men in our dealings with our patients.

From an acceptance of the idea that the doctor himself is the main instrument of treatment stems the recognition that he exerts psychological influences upon his patients, no matter what method of treatment he chooses to employ. An effect of that sort is inevitable in any such interrelationship between two human beings. Thus, it can be said that either unconscious or intentional psychological forces are involved in all measures used in medical practice.

The doctor may try to behave in terms of the specific description I have given of the ideal qualities for a therapist. If he is successful in giving the impression that he is a man in whom the patient can trust and have confidence, much apparent good will be accomplished. If, however, either overtly or unconsciously, he displays disinterest in or dislike for his patient, or manifests a domineering or demanding attitude, or shows an erotic (sexual) interest in his patient, he tends to destroy his usefulness in treating that particular person. Any of these reactions on the part of the doctor serves only to add quite unnecessary complications to the doctor-patient relationship.

Think of the actual position of the doctor in the treatment situation. He is in a position of authority and of great personal influence, and at times the patient reaches the point of expecting him to dispense magic—to be omniscient and omnipotent. Not infrequently, because patients regard the doctor as all-powerful and able to grant their wishes, they cling to him and wish to be entirely dependent upon him, instead of trying to make their own decisions. These are unnecessary complications that one should strive to avoid. On the other hand, the doctor may at times have too great an interest in attaining success in the treatment of a patient—so great an interest that he looks upon any progress as due solely to his own efforts, and upon any failure as the responsibility of the patient. It is wise for him to avoid investing too much of his self-esteem in the treatment of any one individual, for he will only be disappointed if he sets his goal too high.

Illness is always a stress situation for the patient. He is more or less frightened at the threat to both his physiologic and psychologic equilibrium. He tends to react to the stress situation in terms of his characteristic and habitual behavior pattern and attitudes. Knowledge of this tendency and insight into the fact that there is more to what goes on in a patient's emotions than appears on the surface is most helpful to the doctor in understanding the personality make-up, psychological needs and emotional conflicts of the individual who is under his care.

Let us examine a most important aspect of illness. Margolin has emphasized the regression which takes place in illness and the means by which it can be handled during treatment.[3] In every illness there is evidence of a regression to earlier phases of development, both physiologic and psychologic. That is to say, the sick person becomes more or less childlike, and is dependent, passive and demanding in his attitudes. These regressive reactions are usually reversible when

one of the major factors in the particular illness has been dealt with satisfactorily. Thus, when the systemic reaction to infection or trauma begins to subside, the helplessness, clinging dependence and many other responses that have been characteristic of the particular patient's personality make-up tend to disappear.

The regression to which the sick person is subject can be termed adaptive in so far as the patient is putting himself passively into the hands of the therapist or the therapeutic team for the help and treatment which he needs.[4] But regression may be maladaptive. In such instances the patient does not accept illness as something for which he needs help, and does not seek the treatment needed by putting himself into the hands of a physician. Instead, he loses voluntary control, over-reacts to the illness and makes no active attempt to help himself or the doctor who is caring for him.

Usually, physicians intuitively recognize the regression which an illness brings about, and in varying degrees they treat their patients like the children they seem to have become. The individual physician's capacity to tolerate and gratify these demands of the patient has been called his art of medicine. Doctors who do not have the capacity unconsciously to identify themselves with each of their patients must deliberately make themselves aware of their own and their patients' psychic processes. Such an awareness will make the doctor cognizant of his patient's hidden anxieties, hostilities and secondary gains. Even when the illness is severe and incapacitating, the doctor will be tactful and considerate enough to facilitate the patient's adjustment to the needed treatment, and will increase his tolerance for the ups and downs of the illness. The alleviation of the doctor's anxieties and the control of his aggressive and other tendencies will be reflected in the smoother clinical course in all illnesses and with all kinds of treatment. Thus, the traumatic effects of surgical procedures and of hospitalization can be decreased to a significant degree.[4]

The personality make-up of the patient determines the manner in which the treatment should be prescribed for him. Thus, one with an obsessive-compulsive make-up will readily accept a regimen which demands strict observance of a schedule as regards time intervals, amounts of medication, and prescriptions and proscriptions of foods. Patients who react more impulsively would be happier with what has recently come to be called "demand feeding schedules." Frequently, however, the doctor's own personality, rather than his objective evaluation and consideration of the patient's capacity and needs determines his choice of the type of management for an illness.[4]

A doctor's self-awareness and understanding of himself and of his own emotional needs and conflicts are mort important considerations. He will function best when he is unhampered by biases, blind spots, anxieties and inhibitions. Sometimes a poor relationship between doctor and patient results from the doctor's failing to understand his own reaction toward the patient, rather than from his inability to understand the patient. Under such circumstances, the majority of physicians revert to what has been called their habitual bedside manners. The bedside manner has been described by Bibring[5] as an armor usually acquired during the second, third and fourth years of medical school and carried by the physician throughout the remainder of his life. He dons it regardless of whether it is appropriate to the situation or to the patient. Some of the bedside manners that Bibring describes are "(1) the good, warm and understanding; (2) the strong, reserved and all-powerful; (3) the jovial and slightly teasing; and (4) the charming and captivating." The doctor clothes himself in this armor whenever he is troubled or overly concerned about a patient, when he doesn't understand the patient or when he feels insecure.

Bibring describes how the house officers of a general hospital were freed of this habit.[5] They were encouraged to observe how they related to their patients and how the patients reacted to them. They were asked to see whether they could discover whether there were certain types of patients or certain situations that repeatedly seemed responsible for either particularly good or particularly unsatisfactory doctor-patient relations. Each of the doctors then compared his self-studies with those of his colleagues. Thus, they were able to determine differences in the skill with which they handled various types of patients—complaining, demanding, stubborn, clinging, independent, overanxious or unconcerned. When they had completed this study, contrary to their usual tendency of maintaining that such patients are more difficult to handle than others, they attempted to find out why they found certain types of patients more irritating or less manageable than others. The results were most gratifying. Through understanding and controlling their own anxieties, their prejudices against certain types of behavior and their personal involvements with patients, the doctors were able to begin functioning freely and achieving their utmost potentialities.

I shall not attempt to discuss the problems of dealing with severely ill patients or with those having chronic illnesses. Nor shall I enter upon any consideration of such specific topics as how to handle sick children or elderly patients. Moreover, I shall not discuss the problem of the dying patient (a subject that is covered in a monograph by Dr. Kurt R. Eissler[10]) or that of the patient with an incurable condition. I hope, however, that I have succeeded in conveying to you some notion of the importance that should be attached to the old injunctions to the physician, "Know thyself," and "Heal thyself."

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Hormones in Present Day Gynecology

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Endocrine therapy is basically replacement therapy. Its most obvious use is the supplying of hormones formerly produced by a gland that has been extirpated surgically. Endocrine therapy is also employed to complement the meager supply of hormones furnished by a damaged or inadequate endocrine gland—i.e., thyroid substance is administered when the thyroid activity is too low, and insulin is employed when the pancreatic function is inadequate. On this basis, endocrine therapy becomes a matter of long-term management and is rarely curative.

There may be another effect of endocrine therapy—one of suppression. In such instances, replacement therapy removes the need for any activity on the part of the endocrine gland. The administered hormone may act directly, or it may suppress a trophic hormone such as one from the anterior pituitary. If complete suppression of the endocrine gland does occur, the hormone administration becomes replacement therapy just as if the gland had been excised surgically. With these two functional principles in mind, we can proceed to consider the hormones most commonly employed in gynecology.

ESTROGENS FOR THE ADOLESCENT PATIENT

Estrogens are substances which bring about the development of the female secondary sex characteristics. The most obvious need for estrogens may be in girls who have a congenital absence of ovaries. These patients can be helped tremendously by a rather prolonged course of estrogen therapy. The fact that they can be feminized even to the extent of cyclic menstruation gives them tangible evidence that they are like other girls, with the result that they more readily adjust, socially and psychologically.

Estrogen should be given for intervals of about three weeks, and then discontinued for a week. Through the alternation of three weeks on therapy and one week without therapy, a predictable bleeding schedule can be established. One word of caution: If the girl is short in stature and if her bony epiphyses are still open, it is well to postpone the estrogen therapy. Estrogen tends to hasten the closure of bony epiphyses, and thus jeopardizes any further growth in stature.

At this point, the question might be raised as to the merit or utility of maintaining cyclic bleeding in a patient with ovarian agenesis. Obviously, the effect is largely psychosomatic or psychologic. After the patient has been given this tangible evidence of her femininity, she can be educated to realize that there is no benefit that she can derive from the bleeding process. The benefits of feminization can be obtained and maintained by doses of estrogen lower than those required for the induction of uterine bleeding.

It should be emphasized that it is not the treatment with estrogen, but the cessation of treatment that brings about uterine bleeding. As a rule, bleeding is an effect of withdrawal or deprivation of estrogen.

During puberty, while the ovaries are still immature and inadequate, a girl may experience prolonged and profuse bleeding. When this phenomenon is due to prolonged intervals of low estrogen production, estrogen therapy will give adequate stimulation for growth and repair of the endometrium so that the bleeding can be stopped. Cessation of estrogen therapy will allow withdrawal bleeding. By cyclic estrogen therapy, the young girl can be assured of a regular, planned menstrual rhythm for a few months. This use of cyclic estrogen therapy may allow her time to mature, so that spontaneously after three or four months, she will experience normal menstrual rhythm. This plan of cyclic estrogen is theoretically sound, but will not produce bleeding according to the

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planned schedule if the patient happens to ovulate about the time that treatment is started. If a corpus luteum is present at the time estrogen therapy is started, the patient will bleed when the corpus luteum regresses, even though estrogen is being administered.

ESTROGEN FOR OLDER PATIENTS

Especially in the third and fourth decades of life, there are instances of partial ovarian insufficiency which give rise to menometrorrhagia or functional bleeding. In these cases, cyclic estrogen can be used to restore menstrual rhythm, but one should examine the patient thoroughly so as to exclude any pathologic lesion as a cause for the bleeding irregularity. It should be realized that whereas complete ovarian failure causes amenorrhea, a partial ovarian failure may cause menometrorrhagia. Then, the use of cyclic estrogen therapy in amenorrhea and also in menometrorrhagia becomes rational in the correction of various degrees of estrogen deficiency.

During the climacteric, the ovarian production of estrogen diminishes very markedly. It becomes a matter of philosophic interpretation whether this spontaneous decrease of ovarian activity should be considered a normal change. If it is normal, is there any need for treatment? If it is abnormal and represents a deficiency, should the patient be given estrogen throughout the rest of her life? Or should she be given estrogen for a relatively short period, just to carry her over this period of transition?

The climacteric may be associated with vasomotor manifestations—the hot flushes. In many instances these symptoms can be controlled by estrogen therapy. It has been shown that estrogen causes a shift of blood to the periphery, where it can be cooled. It has been postulated that in the absence of estrogen, the responsibility for body temperature regulation is shifted to the autonomic nervous system. When the autonomic nervous system brings blood to the periphery for cooling, the results are the sudden and dramatic flush. The hormonal control of peripheral vasomotor tone is very smooth, as contrasted with the intermittent neural control.

Ordinarily, doses of estrogen sufficient to control menopausal symptoms should not cause withdrawal bleeding, and if it does occur, the dose of estrogen should be reduced. The possibility of confusion as to whether the patient is bleeding from a malignancy or from estrogen withdrawal can be avoided if estrogen is given on a cyclic basis. For this reason, it should be a rigid rule that estrogen should ALWAYS be given cyclically.

Aside from the replacement effects of estrogen, there is the suppressive effect on the gonadotrophic hormones of the pituitary. It is known that there is an excessive output of gonadotrophin after ovariectomy or after the menopause. This excessive excretion of gonadotrophin is inhibited by estrogen, but there are no known symptoms due to the presence of elevated gonadotrophins, nor are any benefits gained by their suppression.

OTHER USES OF ESTROGEN

There are several tricks which take advantage of the effect of estrogen on the anterior pituitary. If a woman with normal cycles is given 1 mg. of stilbestrol daily from the fifth to the twentieth day of the cycle, ovulation may be inhibited in that cycle. This was demonstrated by Sturgis and Albright[1] in patients with primary dysmenorrhea. It had been noted that dysmenorrhea was consistently associated with a secretory (progestational) endometrium. By inhibiting ovulation and thus inhibiting the development of a corpus luteum, they completely relieved their patients of the dysmenorrhea in the treated cycle. This procedure makes it possible to judge whether dysmenorrhea is a functional condition. Thus it becomes a diagnostic test for primary dysmenorrhea.

Another trick that can be done with estrogen is to give a single oral dose (5-10 mg. of stilbestrol) about the sixth day of the menstrual cycle.[3] This delays ovulation about ten days, and results in a cycle of 38 to 40 days. It has no therapeutic use, but occasionally a patient desires to have her next period postponed so that it will not coincide with some social occasion.

Each pharmaceutical house finds it advantageous to devise its own trade name for estrogen. It would be well to use an inexpensive estrogen, and learn its effective dose range for various situations. Except in potency, there seems to be no pharmacologic difference among the various preparations. If stilbestrol is used as a reference standard, it can be stated that Premarin is about 1/5 as potent; Vallestril about 1/10 as potent and TACE about 1/20 as potent. There is no known difference between the synthetic and the natural estrogens, if comparable physiologic doses are given. The side effects such as nausea, induced by oral doses of 10 to 25 mg. of stilbestrol have been noted when ethinyl estradiol is given in 0.5 to 1.0 mg. doses, and would probably be evident if Premarin were given in 50 to 125 mg. doses.

PROGESTOGENS

Progesterone, the hormone of the corpus luteum, acting together with estrogen, prepares the endometrium for pregnancy. Since there is no other known function of progesterone, its rational use would be confined to replacement therapy in anticipation of pregnancy or during the early weeks of gestation. The most obvious need for progesterone would be after surgical extirpation of the ovaries or the corpus luteum in the first month of pregnancy. Surgery to control the hemorrhage from a ruptured corpus luteum cyst or a twisted

ovarian pedicle would create this hormonal deficiency. The corpus luteum produces both estrogen and progesterone, and progesterone is ineffective unless estrogen is present. After removal of the ovary or the corpus luteum, estrogen and progesterone must be administered simultaneously.

There are undoubtedly defective or deficient corpora lutea, and occasional abortions may result from this deficiency. The available evidence suggests, however, that not over five per cent of lost pregnancies are attributable to corpus luteum deficiency or could be prevented by combined estrogen-progesterone therapy. The evidence is based largely upon urinary excretion studies of pregnanediol, a metabolite of progesterone. These studies show that when pregnanediol values are practically zero and when cramps or bleeding begins, abortion is inevitable, and the embryo is already dead. In these cases, treatment with estrogen and progesterone is not indicated, and if employed, it may just delay the expulsion of the involuting decidua and trophoblastic remnants. In two cases in our experience, the expulsion of a hydatid mole may have been delayed by the administration of progesterone. When pregnanediol recovery values are normal, there is no evidence of progesterone deficiency, and consequently there is no indication for replacement therapy.

These findings lead to the conclusion that at the time of onset of symptoms in cases of impending or threatened abortion, it is too late for progesterone, if indeed it ever might have been beneficial. Thus, if one elects to use progesterone plus estrogen in cases of threatened abortion, he should do it as a part of the art, rather than of the science, of medicine.

Adequate replacement therapy in the early weeks of pregnancy would be 50 mg. of progesterone per day intramuscularly, together with estrogen in doses equivalent to 1-5 mg. per day of stilbestrol. Progesterone itself, given orally, is practically inert. An effective oral progestogen is ethinyl testosterone, sold under the trade names of Pranone, Lutocylol, Progestoral and Ora-Lutin. If this substance is used, the daily dose should be 80 to 100 mg., together with estrogen as noted above.

Since the corpus luteum normally involutes after the third month of pregnancy, and the placenta takes over the production of progesterone and estrogen, there is no indication for corpus luteum replacement therapy after the first trimester. If the placenta is incapable of producing its hormones, it most probably is unable to maintain its other functions, and the replacement of its hormones won't save the pregnancy.

It is claimed by some investigators that the desquamation of secretory endometrium is more complete than the desquamation of proliferative endometrium. On that basis they advocate giving progesterone to the patient during the last few days of a course of estrogen therapy. This means of stimulating the endometrium, together with the subsequent withdrawal bleeding, has been designated medical curettage. Certainly the onset of bleeding occurs more promptly, usually on the second day after the cessation of the combined therapy, whereas the onset of bleeding may be as late as five or six days following estrogen withdrawal.

Some tricks which can be done with progesterone probably have no real therapeutic value. In cases of amenorrhea, a short course of progesterone (25-50 mg. intramuscularly on alternate days for two or three doses) will cause a withdrawal bleeding if the ovary is still producing some estrogen. If no bleeding ensues, one is justified in supposing that there has been a rather complete ovarian failure. This test for the degree of ovarian failure is invalid in pregnancy.

If the amenorrhea is due to pregnancy, a course of progesterone will not induce bleeding, and some physicians have used progesterone in this manner as a pregnancy test. The patient must be made to understand that the shots of progesterone will not abort a pregnancy.

ANDROGENS

Androgens have very limited use in women, since their continued use leads to undesirable virilizing side effects. A short course of androgen may be very beneficial in a patient who has been bleeding excessively and has become anemic. If testosterone is administered, the bleeding stops within two or three days, and then there is no withdrawal bleeding after the cessation of treatment. Usually, 100 mg. per day intramuscularly for three days is adequate. In this situation, the use of estrogen either with or without progesterone to stop the bleeding would lead to the ultimate withdrawal bleeding episode, and it, once more, would aggravate the existing anemia.

The biologic effects of testosterone are of a dual nature in these cases. One effect is a suppression of the gonadotrophic activity of the pituitary which puts the ovary at complete rest. This relieves the endometrium of any estrogenic stimulation so that it also is put at rest. Another effect of testosterone is a protein anabolic action which stimulates regeneration of body and blood proteins.

COMBINATIONS OF ESTROGEN AND ANDROGEN

There is a tendency for postmenopausal patients to develop osteoporosis, along with their other protein deficiencies and loss of muscular vigor. Testosterone has been combined with estrogen for the management of these patients. The testosterone is given primarily for its protein anabolic effect which helps replace the protein matrix of

the bones, and the addition of estrogen tends to augment this action of the testosterone. The main advantage of the androgen-estrogen preparations is that the undesirable side effects of each—virilization in the case of androgen, and uterine stimulation in the case of estrogen—are avoided through the reduction in dose of each below its usually effective level. There have been claims made that estrogen has an antagonizing and neutralizing action on androgen, but they have not been borne out. The main factor seems to be that because their effects are additive, one can cut the dose of each so as to avoid the direct side effects.

Another use of the androgen-estrogen combination has been the inhibition of lactation. It has been shown that when either estrogen or androgen is given immediately postpartum, the engorgement of the breast is prevented, or at least the pain of the engorgement is relieved. The mechanism of this action is not clearly understood, but it seems that if the steroid hormone levels of pregnancy are maintained for about a week after delivery and are lowered gradually through a reduction of the dose, the abrupt transition is buffered, and the breast reaction is eased.

The effect seems principally to be relief from the painful vascular engorgement, rather than an actual suppression of lactation. In several cases, the mother has changed her mind and decided to nurse the baby, and the act of suckling was sufficient to permit lactation, in spite of the sex hormones that had been given.

GONADOTROPHINS

There has been much research on gonadotrophins in experimental animals. As yet, however, no one has achieved predictable ovarian stimulation in women through the use of pituitary gland extracts. The gonadotrophic hormones are proteins, and the processes by which they are extracted from other pituitary proteins have been incomplete and attended with a great loss in potency of the purer extracts. The presence of the foreign proteins (beef, sheep or hog) has given rise to immunologic reactions and manifestations, and to the formation of "antihormones." These antibodies neutralize or inactivate the pituitary hormones after two or three weeks' continuous administration, so that further therapy is useless. In cases of infertility due to ovarian inactivity, one would have to know the proper sequence of doses and achieve a pregnancy in the first course of therapy, for subsequent gonadotrophin therapy might be vitiated by the antihormones. The protein chemists are still trying to obtain pure preparations that are non-antigenic.

Chorionic gonadotrophin is a hormone elaborated by the human placenta, and in censequence it is non-antigenic. It is a luteotrophic hormone, since its action maintains a functional corpus luteum. It has no effect on a developing follicle, and it has no effect on the process of ovulation. But if a corpus luteum is present, it will maintain it in a functional state for several weeks. Its use in women is indicated only in those instances where the corpus luteum is inadequate. In cases of infertility where the basal temperature graph suggests that the corpus luteum regresses after three or four days and does not prepare the endometrium for implantation, one could use chorionic gonadotrophin to stimulate and maintain the corpus luteum for a week or two. Chorionic gonadotrophin injections should be started on the second or third day of the rise in basal temperature that indicates ovulation and corpus luteum formation. The dose of chorionic gonadotrophin should be 2,000 to 5,000 units per day for eight or ten days. If implantation occurs, the trophoblast will start producing much more chorionic gonadotrophin than can be administered. If implantation does not occur, there is no need for further treatment until the next cycle.

Posterior pituitary preparations of vasopressin have no specific gynecologic indications. The posterior pituitary ocytocic preparations are well known, and much has been written recently on the effects of highly diluted pitocin administered as an intravenous drip in cases of uterine inertia. Dr. W. C. Keettel[2] showed in a recent study of prolonged labor that uterine contractions were stimulated in nearly all cases. But in spite of this hormonal response, it is of interest that 40 per cent of the patients were delivered by cesarean section.

CORTISONE

There is one specific indication for cortisone in gynecology, namely the adrenogenital syndrome. Women exhibiting that set of characteristics have a metabolic defect in their adrenals which makes them deficient in the production of hydrocortisone. In the attempt to overcome this deficiency, the pituitary increases its output of ACTH, and the overstimulated adrenals produce an excess of 17-ketosteroid precursors which may be adrogenic. Hirsutism and amenorrhea are the commonest findings, and some cases show other evidence of virilism. The adrenal androgens suppress the gonadotrophic activity of the anterior pituitary, and thus give rise to amenorrhea or oligomenorrhea as evidence of ovarian suppression. Cortisone therapy replaces the adrenal deficiency and also suppresses the output of ACTH. The decrease in adrenal activity results in a drop in the production of the androgens which have been suppressing gonadotrophin production. If the cortisone dosage is sufficient to suppress the androgens for two or three weeks, the return of ovarian function is manifest in the restoration of menstruation. The dose of cortisone should be adjusted to the needs of each patient, but the dose is usually

adjusted so as to maintain 17-ketosteroid excretion at about 8 mg. per 24 hours.

In general, the initial dose of cortisone is 100 mg. per day intramuscularly for five days. If this reduces the 17-ketosteroid excretion to normal, it constitutes a diagnostic test for the adrenogenital syndrome. Having established the diagnosis of the adrenogenital syndrome, one can work out the optimum daily maintenance dose by trial and error.

ACTH has no specific use in gynecology or obstetrics. Much has been written on the use of thyroid substance in gynecologic cases, but aside from its use in hypothyroid cases, its applications have been empiric, and the results have been haphazard.

CONCLUSION

It should be emphasized that reproductive function is a luxury that is set aside or displaced by many infectious, nutritional and metabolic processes. Menstrual disturbances are frequently a symptom of some systemic derangement that needs to be corrected. The old dictum "If you take care of the vitamins, the hormones will take care of themselves" is still valid. Endocrine replacement therapy becomes consistent and predictable only when the patient is otherwise in a state of good health and nutrition.

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Treatment of Amblyopia Ex Anopsia With Eccentric Fixation

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In some patients with uniocular strabismus, the deviated eye makes no movement of redress, but remains in its deviated position when the fixating eye is occluded. Such eyes usually have an absolute central scotoma and very low visual acuity, and it is generally said that they have *eccentric* fixation.

THE NATURE OF THE DIFFICULTY

It has been recognized for some time that this condition represents a form of *amblyopia ex anopsia* which poses special problems as regards its nature and its therapy. Thus, Swan[1] believes that this type of visual impairment must be due to a different mechanism from that of the usual type of *amblyopia ex anopsia*, and states that occlusion of the better eye in these cases may simply enhance this abnormal mechanism and should not be continued if the child persists in fixating eccentrically.

Chavasse[2] rated eccentric fixation as a particularly severe grade of what he termed "obligatory amblyopia." He emphasized the important point that the acuity of the eccentric retinal region in the deviated eye which the patient persistently used never exceeded the level which was normal for the site of that spot—i.e., that it was always 6/60 or less. Chavasse did not recommend the term *false macula* for this retinal region, but preferred to call it "pseudomacula." He also established a connection between eccentric fixation and anomalous or, as he termed it, secondary retinal correspondence. He spoke of "faculative pseudomacular fixation," meaning thereby the anomalous use of the macula of the fixating eye together with the eccentric area of the deviated eye, and of "obligatory pseudo-macular fixation," when the patient continued to keep his eye in a deviated position—i.e., continued to "fixate" with an eccentric retinal area of the deviated eye—even when the fixating eye was occluded.

The view that there is a close connection between anomalous (secondary) retinal correspondence and eccentric fixation has been adopted by various authors (e.g., Epstein[3]), and Duke-Elder[4] also agrees, although he warns that anomalous correspondence is by no means confined to and does not essentially depend upon the perversion of fixation.

On the whole, these concepts of eccentric fixation have never greatly appealed to me. Rather, it has always been my opinion that the situation in these patients could best be described as follows.

When we do an alternate cover test, we make use of the re-fixation reflex. In this test, the pa-

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tient assumes central fixation with either eye, provided that in so doing he obtains a clearer view of the fixation point than he would if the eye were to have remained deviated. If the vision of the macular area is so far depressed that its acuity is below that of the peripheral retinal area on which the fixation point is imaged when the eye is deviated, then there will be no movement of redress, since it would entail no reward. In other words, I prefer to put the emphasis on the poor central vision and do not believe that these patients truly "fixate" eccentrically. Nor do I think that either *false macula* or *pseudomacula* is an appropriate term, for the peripheral retinal region in question neither has nor acquires macular characteristics. I also think that it is misleading and confusing for one to attempt establishing a close relationship between eccentric fixation and anomalous correspondence. Although many patients with eccentric fixation undoubtedly have anomalous correspondence, the two phenomena are quite distinct in nature and in origin.

It might be of interest for me to point here to a misinterpretation that Guibor[5] has given to the result of the after-image test in a patient with eccentric fixation. He states that the patient did not see the vertical and horizontal after images in the form of a cross, but saw them separated from each other. Now with his deviated eye, this patient could not fixate centrally on the lamp producing the after image in that eye, and as a result, the fixation point did not fall on its fovea. For that reason, the fixation point did not represent the fovea in the after image of the deviated eye, but instead represented a peripheral retinal area. Since that area was disparate, relative to the fovea of the fixating eye, and since these two retinal regions thus normally had different visual directions, the two after images would have had to be separated if normal retinal correspondence existed. This particular patient should have been able to see the after images in the form of a cross only in case of harmonious *anomalous* correspondence. Actually, of course, the after-image test is simply not applicable in this type of patient.

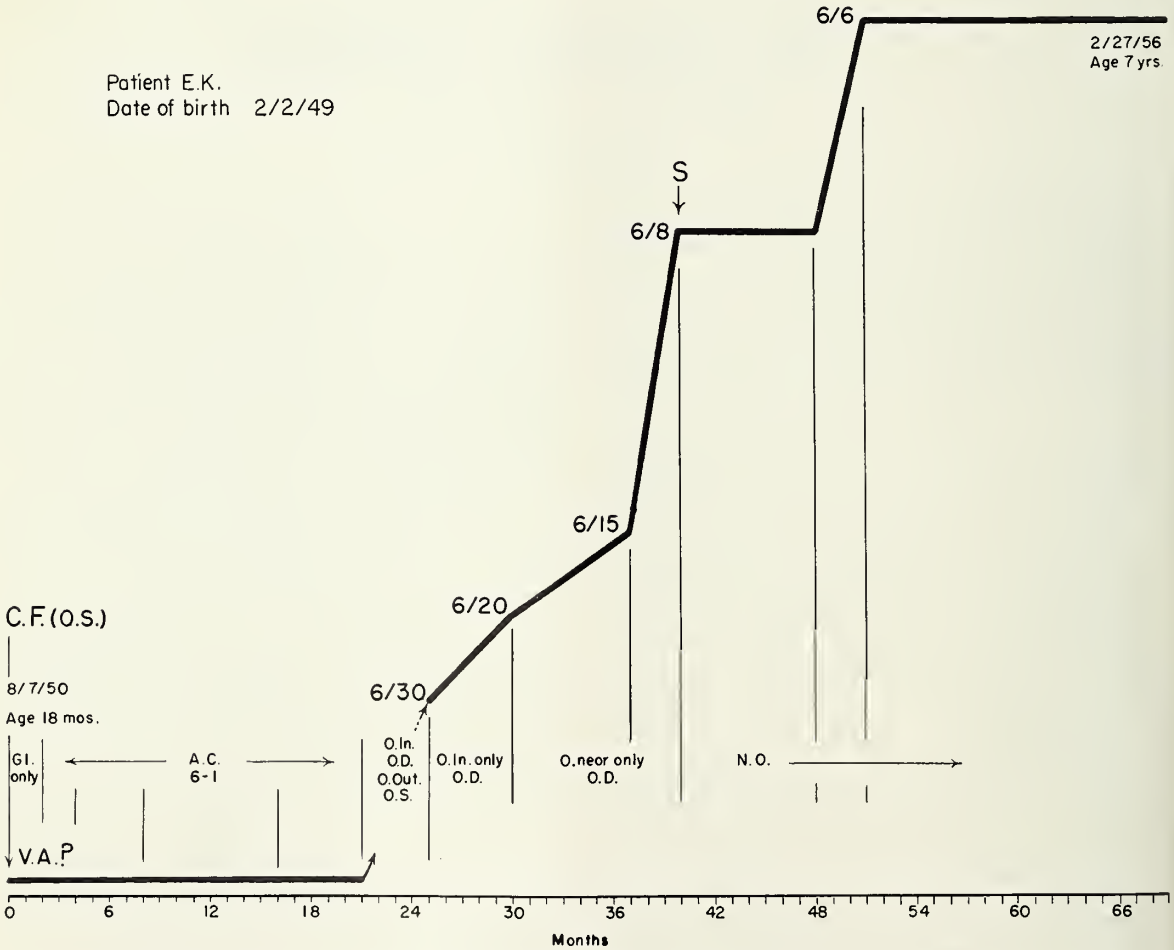


Figure 1. Central fixation, (C.F.), but low visual acuity, treated with alternating occlusion (A.C., right eye 6 days, left eye 1 day); followed by occlusion of right eye indoors (O. In. O.D.) and occlusion of left eye out of doors (O. Out. O.S.). Operated upon when vision O.S. reached 6/8. No occlusion, vision 6/6 since then.

THERAPY

Regardless of the nature of eccentric fixation, the question remains open whether or not complete and constant occlusion is a proper form of treatment in these patients. It has already been mentioned that Swan[1] believes that such treatment simply enhances the mechanism of eccentric fixation, and Duke-Elder[4] also thinks that it does no more than stabilize it. Bangerter[6] is particularly emphatic on the point that constant occlusion of the better eye is not the method of choice in the treatment of *amblyopia ex anopsia,* more especially in patients with eccentric fixation. In the latter cases, occlusion of the better eye reinforces the paramacular area in the deviated eye, and at best vision is improved no more than from 0.1 (6/60) to 0.3 (6/20). It is not clear how any improvement at all can take place if the paramacular area is reinforced, but Bangerter makes no explanation.

Bangerter has developed a remarkable set of exercises to be given in a school to which children are admitted for a number of months. There can be little doubt that such exercises, if carried out expertly and consistently, would offer great advantages over simple occlusion of the fixating eye. In this country, many of us who are interested in the treatment of *ablyopia* have insisted time and again that occlusion as such is a passive treatment which is of no avail unless the amblyopic eye is actively used, and we have attempted to supplement occlusion with simple, planned exercises that can be done at home. It remains to be seen whether the very elaborate methods advocated by Bangerter really warrant general adoption in preference to the simpler and more readily available treatment.

The concept that constant occlusion of the better eye causes enhancement of eccentric fixation has led to other forms of occlusion treatment for the condition. One consists of the occlusion of the amblyopic eye, rather than the fixating eye, so as to break up the habit of eccentric fixation.

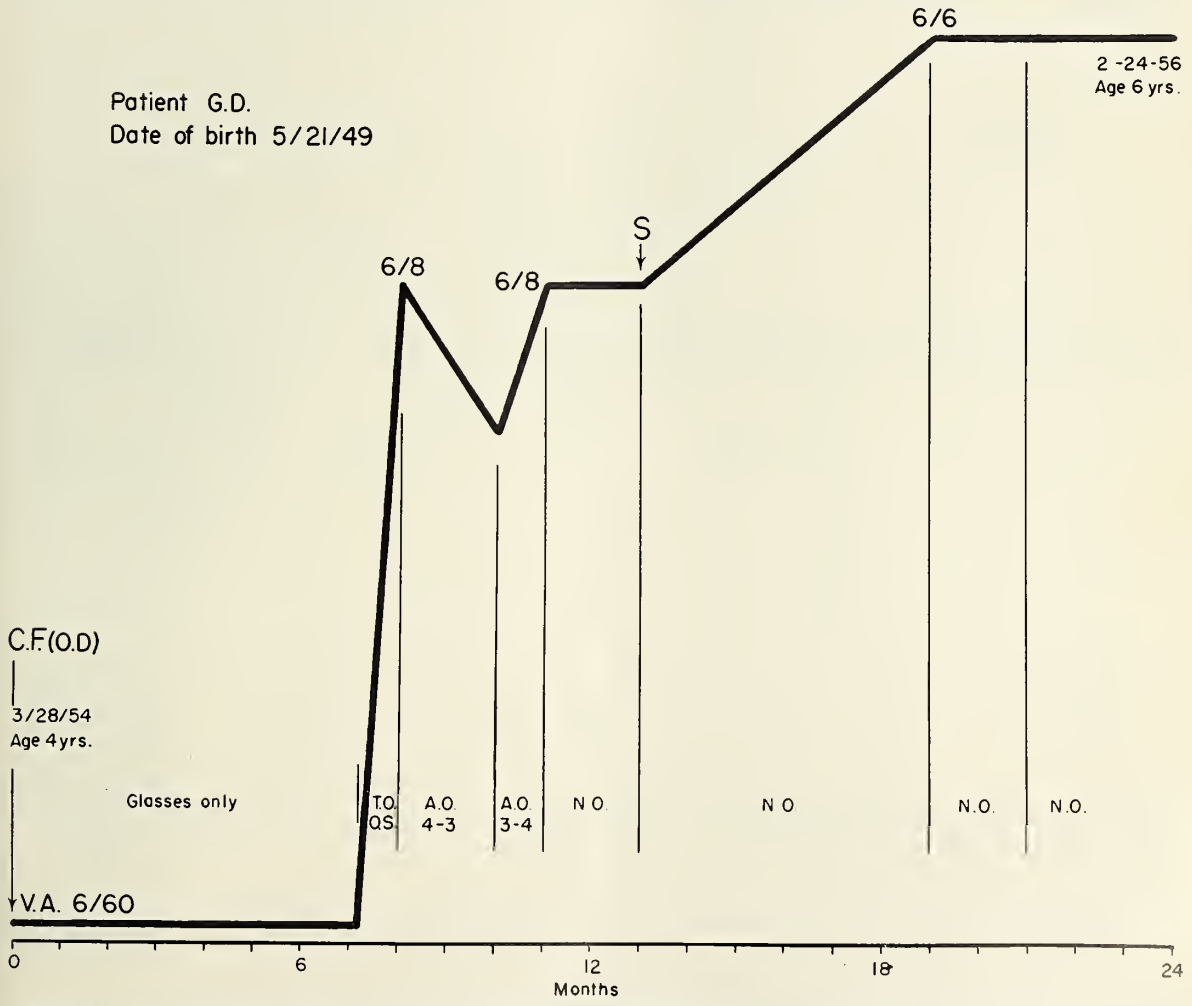


Figure 2. Central fixation (C.F.), but vision O.D. (6/60). Total occlusion (T.O.) improved vision to 6/8, followed by alternate occlusion (A.O.) and surgery (S.). No occlusion, vision 6/6 since then.

When this objective has been achieved, the better eye is then occluded in the usual fashion. Another attempt is the so-called temporal occlusion developed by Miss Swenson[7] and found useful by some investigators (Stelzer[8]). In this procedure, a partial occluder is placed on the temporal half of the spectacle lens in front of the deviated eye in such fashion that no stimulus can reach the nasal half of the retina of that eye. This type of occlusion acts essentially like the complete occlusion of the deviated eye. When wavering or central fixation has been achieved, together, possibly, with some improvement in visual acuity, one proceeds with total occlusion of the fixating eye.

So far as I am aware, those who maintain that occlusion of the better eye in eccentric fixation is useless or even harmful have published no clinical data to support their contention. The only paper which contains extensive clinical data is a recent one by Urist,[9] and he comes to some rather unorthodox conclusions. In a group of 58 patients with eccentric fixation who had been treated only with occlusion of the better eye, he found the results to be very encouraging. He noted, in general, that the results were better in children of pre-school age, and that the result depended to a large extent on how well the occlusion was carried out. Also, he concluded from his data that the amount of improvement obtained was dependent upon the age at which treatment was instituted, rather than upon the age of onset of the strabismus. Thus, he did not substantiate Chavasse's concept[2] of an *amblyopia of arrest.*

THE STUDY IN PROGRESS AT SUI

Because of the practical importance of the subject, the dearth of clinical material available in the literature and the existing differences of opinion, we have recently begun a survey of patients with eccentric fixation available to us in the Department of Ophthalmology at SUI. We have made use of the patients, both private and clinical, who returned to our strabismus service and our orthoptic department. Thus far, we have gathered the records of 35 patients with eccentric fixation

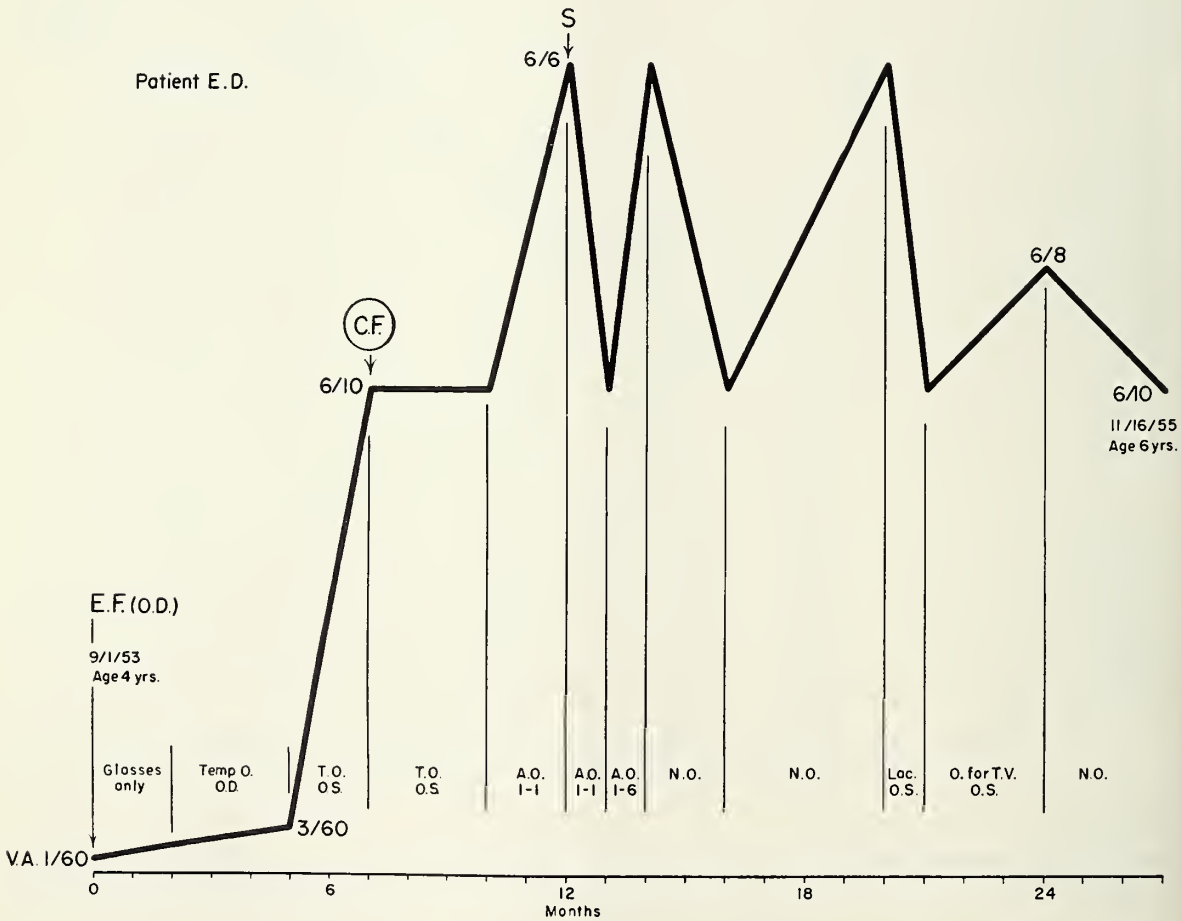


Figure 3. Eccentric fixation O.D., with vision of 1/60 improved to 3/60 with temporal occlusion O.D. (Temp. O. O.D.) and to 6/8 with central fixation (C.F.) by total occlusion O.S. (T.O. O.S.). Continued improvement, but great variability of acuity; vision now stabilized around 6/10.

to whom occlusion treatment in one form or another had been given. Thirty-three of these were noted to have eccentric fixation on the initial visit, whereas two were classified as having wavering fixation. For purposes of comparison, we have also incorporated into our material the records of seven patients who had very low visual acuity in their amblyopic eyes, but fixated centrally. In this latter group, three patients had vision of 6/60 in the amblyopic eye, and two each had vision of 6/30 and 6/20, respectively.

At present, we have thus had a total of 42 patients at our disposal. Although this is a reasonably large number, if one considers the relative rarity of the condition, it is not large enough to serve as the basis for a satisfactory statistical evaluation, more especially since the patients don't constitute a particularly homogenous group. The age at presentation and the length of treatment vary widely, the nature of the treatment itself differs to some extent from child to child, and, most important, the degree of cooperation ranges from none at all to excellent. Therefore, if the patients are separated into various categories, the number of each sort is too small to allow statistical treatment of the figures.

We are continuing with the collection of data, and hope eventually to be able to present a statistical survey of the problem, but for the time being we can propose no more than certain conclusions which have resulted from our overall study and from our observation of individual cases. We have recorded the cases in the form of graphs, several of which are reproduced with this report. At the time of each of the patient's visits we recorded his visual acuity, the treat-

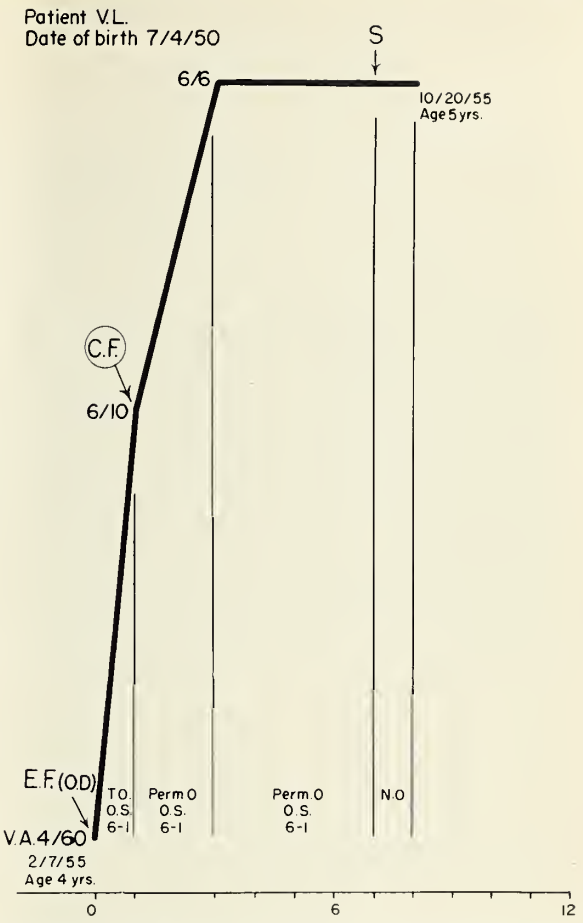


Figure 4. Eccentric fixation O.D. with vision of 4/60 brought up in short time to 6/6 with central fixation (C.F.) by total occlusion O.S. for six days, one day no occlusion. Vision now stabilized at 6/6, but observation period short.

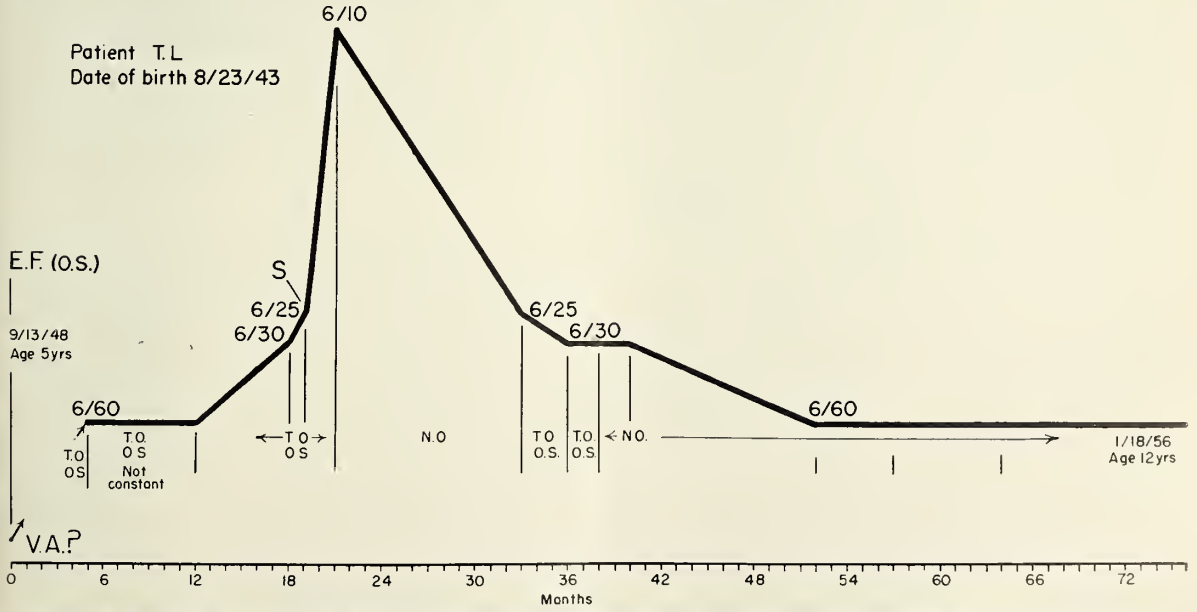


Figure 5. Eccentric fixation O.S. When cooperation was satisfactory, vision could be brought up to 6/10 by total occlusion O.S. (T.O. O.S.). Cooperation became unsatisfactory, and vision O.D. returned to 6/60.

ment prescribed and such other information as seemed pertinent.

From our evaluation of this material, certain facts are apparent. In no case did we gain the impression that occlusion of the better eye reduced our chances of improving the vision of the amblyopic eye. As a matter of fact, there was a more or less significant improvement of the acuity of the amblyopic eye in the majority of cases. Certain factors influenced the result of treatment. First and foremost among them were the age of the patient and the degree of cooperation. The younger the child at the start of occlusion treatment, the better the result. This superiority appeared to follow not only from the obviously greater plasticity of the younger children, but also from the greater cooperation that they gave us. The younger child whose visual requirements are relatively slight can be expected to put up with a severe reduction in visual acuity for a certain length of time.

The importance of cooperation is quite apparent from some of our graphs. When cooperation was poor, there was no gain in visual acuity, but when cooperation improved, the gain was often remarkable. It is also evident that anything less than total occlusion was of no avail whatever. In one of the patients who was of school age, occlusion of the better eye for a half hour to an hour a day over a period of some months had absolutely no effect on the vision of the amblyopic eye. This finding is worthy of attention, since Bangarter[6] seems to feel that such a procedure may be helpful in older children.

Although complete and constant occlusion is undoubtedly a prerequisite for successful treatment, we have found temporal occlusion of the amblyopic eye of some use in a number of cases as a preliminary measure. In some patients, we employed alternate occlusion, occluding the fixating eye for, say, three days, and the amblyopic eye for one day. It is difficult to judge whether this procedure added to the efficacy of the treatment or not.

In a few patients, it was observed that a boost in visual acuity followed surgical straightening of the amblyopic eye after central fixation had been attained.

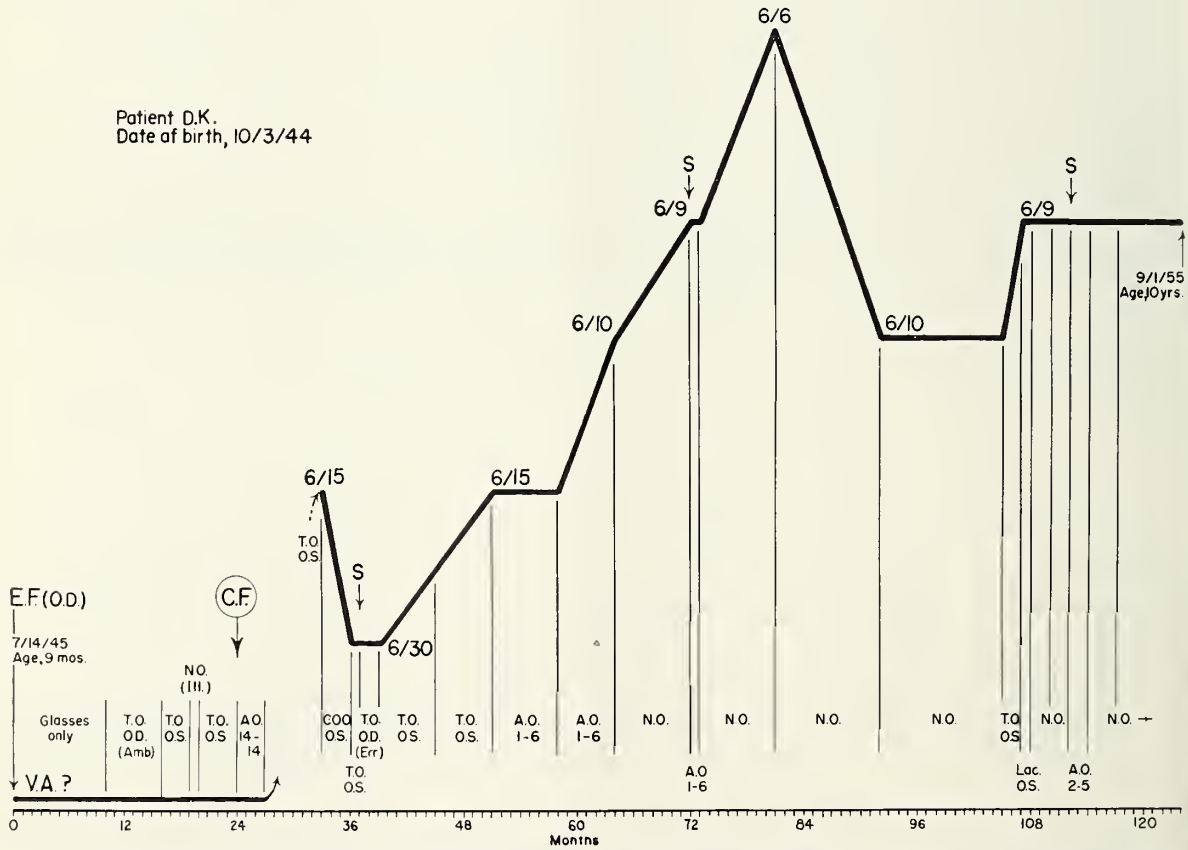


Figure 6. Eccentric fixation O.D. in 9-months-old baby girl. With glasses, occlusion O.D., followed by occlusion O.S., fixation became central. Alternate occlusion (14 days each eye), followed by clip-on occlusion (C.O. O.) and total occlusion O.S. brought vision to 6/15, with gradual improvement to 6/6 with total occlusion O.S. and alternate occlusion O.D. one day, O.S. six days (A.O. 1-6). She was operated upon twice. Without occlusion, vision O.D. returned to 6/10, but is now stabilized around 6/9. Observation period was ten years.

Despite the fact that when faithfully followed, occlusion treatment was usually quite satisfactory in patients who started with eccentric fixation, it was also clear that this treatment had to be prolonged and followed up in those patients even after vision of 6/8 or 6/6 had been attained. The visual acuity tended to be much less stable in these eyes than in those of patients who had started out with central fixation and whose vision had been brought up by occlusion. This is evident from some of the examples given in the illustrations accompanying this paper.

It is impossible to reproduce the graphs for all of the patients, and the few that have been selected must suffice to document what has been said.

SUMMARY AND CONCLUSION

From our material, we have *not* gained the impression that amblyopia ex anopsia with eccentric fixation differs in nature from the amblyopia with central fixation. There would seem to be no more than a difference in degree. We have *not* found that occlusion of the better eye is contraindicated in these cases, although one undoubtedly has more difficulty in obtaining cooperation from patients, especially when they are older children. Also, such patients must be followed up more closely, since their visual acuity, even when improved to as much as 6/6, tends to slip back more readily than does that of patients who started out with central fixation. More can be expected from such measures as temporal occlusion of the amblyopic eye at the beginning of the treatment, and surgical straightening of the amblyopic eye when central fixation has been attained.

All this is not intended to give the impression that active exercises in addition to the occlusion would not be of great value in these patients, but in the foreseeable future we aren't likely to have at our disposal such elaborate arrangements as those which Bangerter[6] has described. It is to be hoped, of course, that similar facilities and methods, in simplified form, may also become available to us and to our patients.

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Preserving the GP's Hospital Staff Privileges

(Continued from page 440)

Protestant Hospital Association, etc., and the chief of staff of every hospital in the United States and its territories and to the deans of all medical schools."

IMPLEMENTATION OF THE POLICY

That was a tremendous resolution! Furthermore, it was passed *unanimously* by the House of Delegates of the American Medical Association and now constitutes the official policy of that organization. There is no uncertainty about its meaning. The words are direct, and they are to the point. They are not the demands of a group of general practitioners bent on self-interest. They are today the adopted policy of the American Medical Association, approved by unanimous vote of the members of its governing body, of whom over 75 per cent are specialists. Now, there is no reason for believing that this recently adopted policy of American medicine is insincere, or that it represents merely a pat on the back for the family physician, or a crumb thrown to a public crying for family doctors. Rather, it represents the deliberate intention of the members of the AMA House of Delegates to correct a trend toward universal specialization. It is designed to restore conditions that will encourage greater numbers of well trained generalists to undertake family practice in this country.

A statement of policy of the American Medical Association, of course, does not solve all problems, nor does the delegation of duties to a committee eradicate the existing prejudices or the hospital staff rules that reflect them, but it is a powerful pointer, and I believe that the hospital staff organizations will take note. The acid test, of course, is neither what's good for the generalist nor what's good for the specialist, nor even what's good for the AMA. Rather, the worth and the viability of any such socio-medical economic policy is to be judged on the basis of what's good for the American people. He who chooses this concept as his guiding principle will stand on solid ground, and on such ground has the American Medical Association chosen to stand.

Truly, the renaissance of the generalist is imminent, and I believe the American people will rejoice.

Plan to Attend the
ISMS ANNUAL MEETING
April 28-May 1, 1957

Hypothermia in the Repair of Interatrial Septal Defects at the State University Of Iowa

J. L. EHRENHAFT, M.D., AND JACK MOYERS, M.D.

IOWA CITY

NUMEROUS INGENIOUS methods to effect surgical closure of interatrial septal defects have been devised and are in general use at the present time. The methods described by Bailey,[1] Gross,[3] Söndergaard (quoted by Björk and Crafoord[2]) and others all have drawbacks in that they do not permit direct vision of the operative site. The operator must place all of the sutures for closure of the defects merely by feeling with his exploring finger while the heart is functioning normally, and actively pumping blood. The authors of this paper share with others the view that direct vision of the lesions to be treated, in this as in all other types of surgery, is essential to the success of the undertaking. It is true that at the present time, blind technics are extensively used, especially in intracardiac valvular surgery, but we think that most of those blind methods will be replaced by procedures permitting direct visual observation as soon as the new methods become safe.

The use of generalized body hypothermia has made it possible to correct many cardiac defects under direct vision in a bloodless field. Lewis[4] and Swan[5] have published reports of sizable series of patients who were subjected to various procedures under hypothermia. We feel that additional reports on this subject by other groups using this particular method will serve a useful purpose. For that reason, we are presenting ours.

In the group of congenital cardiovascular lesions producing primarily left-to-right shunts, interatrial septal defects isolated or complicating other congenital cardiovascular anomalies are more common than are interventricular septal defects or patent ducti arteriosi. As methods for surgical correction are developed, the attitude of pediatricians, internists and surgeons toward these lesions should become more aggressive. The surgical closure of a patent ductus has become a rather routine procedure. The problems of diagnosis and treatment of interatrial and interventricular septal defects are much more complex, but certainly they are not insurmountable. Most patients afflicted with these defects have a reduced life expectancy, and develop pulmonary hypertension, congestive failure and other difficulties leading ultimately to their death. The ideal time for surgical correction of interatrial septal defects is prior to the onset of severe pulmonary artery hypertension and episodes of congestive failure. It has been our experience that a pulmonary artery pressure above 75 mm. Hg. and an elevated mean pulmonary artery pressure, as well as a lowering of the peripheral arterial oxygen saturation, usually leads to poor results following surgical correction of the defect.

For the sake of simplicity, we should like to make three groupings of the interatrial septal defects that we have encountered.

The ostium-primum defect (Figure 1) is situated just above the rings of the mitral and tricuspid valves. The lower border of the defect actually is formed by the rim of fibrocartilaginous tissue at the junction of the two valves. They may or may not be associated anomalies of the tricuspid and mitral leaflets. The other parts of the septal margins may be partly present, or they may be completely absent, forming for all practical purposes a common atrium.

The common atrio-ventricular canal. (Figure 2) The defect of the atrial septum extends inferiorly to involve the rim between the mitral and tricuspid valves. It may extend into the interventricular septum and may actually create a combination of a high interventricular and low interauricular defect, with complete patency to flow in this location into all four cardiac chambers.

The ostium-secundum defect. (Figure 3) The margins of the defect are formed by a complete rim of fibromuscular septal tissue. The defects have been encountered in different locations of the interatrial septum. A rim of tissue is always present, making possible the closure of the defect by suture, without distortion of the mitral or tricuspid valves and without undue tension at the suture line. Multiple defects or defects formed by a fenestrated septum have been encountered. When, as occasionally happens, the rim of tissue over the posterior portion of the defect is very scant or is absent, there is a problem in the sur-

Dr. Ehrenhaft is a professor of thoracic surgery, and Dr. Moyers is an assistant professor of anesthesiology in the Department of Surgery.

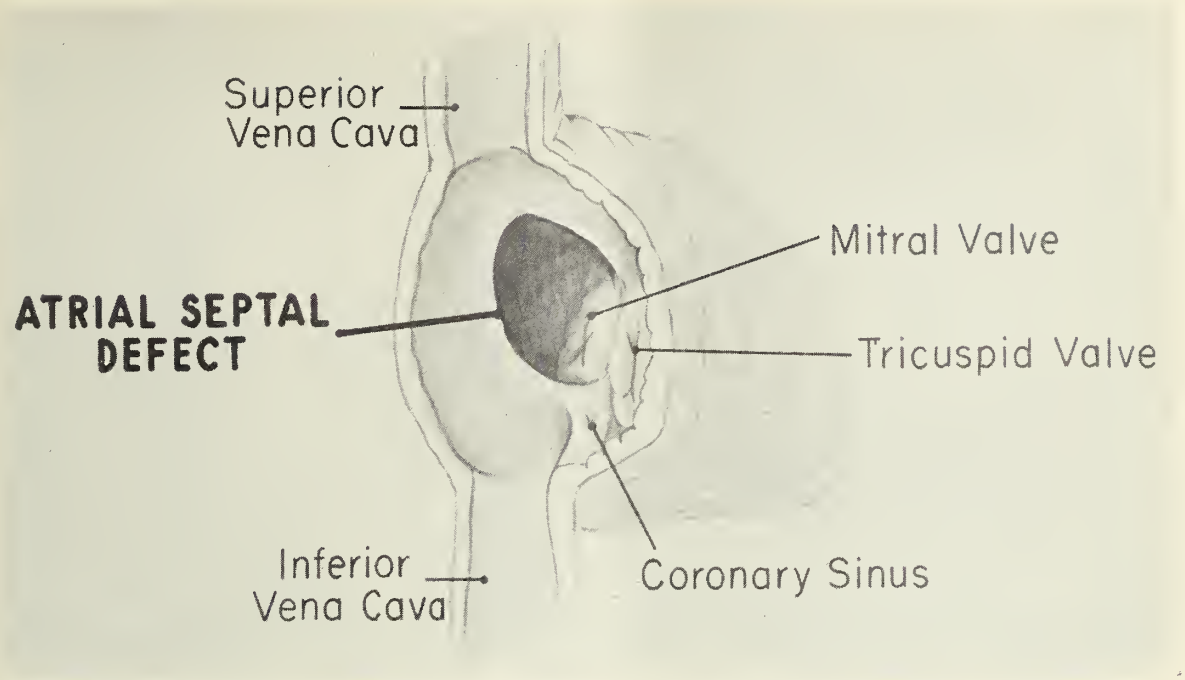


Figure 1. Ostium primum defect. Note the relationship of the defect to the tricuspid and mitral valves.

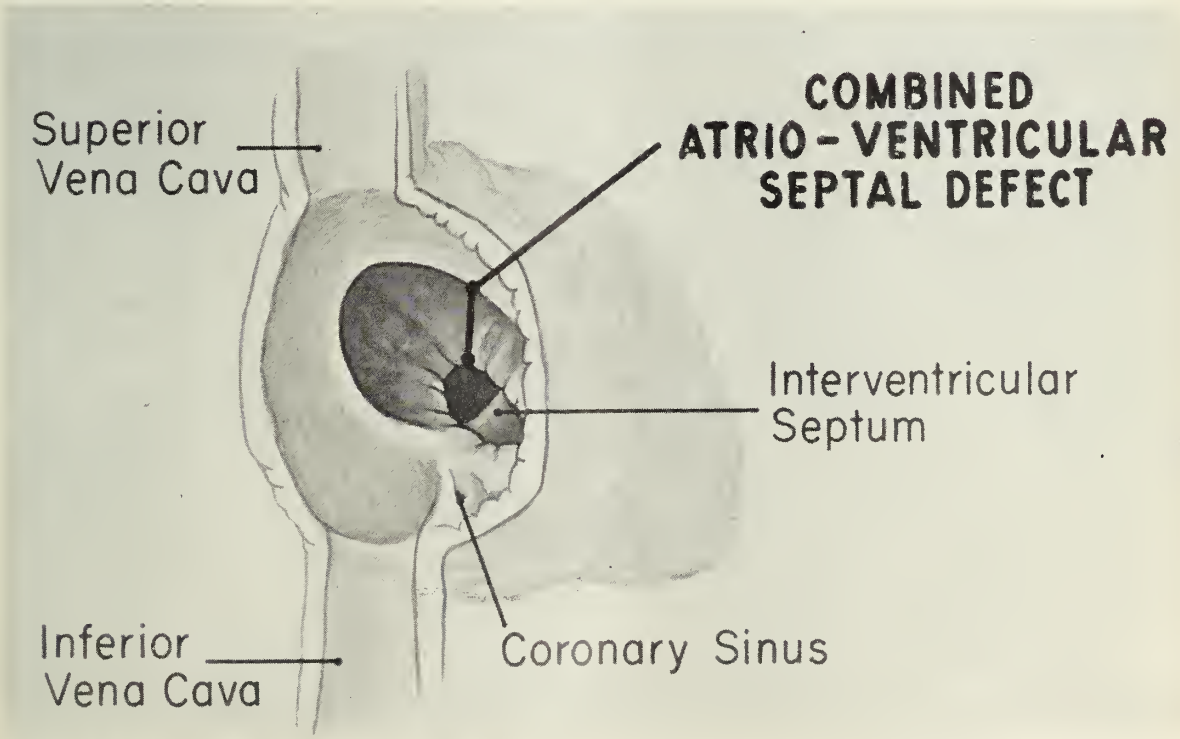


Figure 2. Common atrio-ventricular canal. Note the extent of the defect and the communication between all four cardiac chambers.

gical closure in relation to the openings of the pulmonary veins.

Associated congenital vascular and cardiac anomalies have been encountered repeatedly. We have seen coarctation of the aorta and patent ductus arteriosus in association with interatrial defects, each on one occasion; partial anomalous pulmonary venous return in three patients; and anomalous drainage of a superior vena cava into an anomalous coronary sinus in one instance. The trilogy of Fallot—valvular pulmonic stenosis and interatrial septal defect, with the resultant right ventricular hypertension—was encountered twice and corrected successfully in both instances. In the total group of 23 patients operated upon for interatrial septal defects in our series, only 10 were found to have ostium-secundum type defects uncomplicated by other associated lesions. The size of the defects encountered varied greatly. We feel that the size of the defect has no direct correlation with success in surgical correction. The location and type of the interatrial septal defects, the associated anomalies, and above all, the presence and degree of pulmonary artery hypertension seem to be the crucial factors.

SYMPTOMS

When first seen and diagnosed, about 40 per cent of patients with interatrial septal defects have no severe symptoms. The remaining group may show from mild to severe degrees of dyspnea, fatigability and reduced working ability. If the defect is not closed, most patients will become symptomatic, and a high percentage will develop irreversible cardiac failure.

DIAGNOSIS

The diagnosis can be suspected if a harsh systolic cardiac murmur is present over the pulmonic area, and if there is evidence of right ventricular overactivity. Diastolic murmurs occasionally are present over the apical area. The pulmonic closure sound is frequently split, and often accentuated. At times, a thrill is palpable over the pulmonic area. Many of the children will have a precordial bulge of the chest cage to the left of the sternum, resulting from the enlarged right ventricle's pushing against this portion of the chest cage. A frail habitus and underdevelopment is often seen in the younger patients. An electrocardiogram demonstrates most commonly an incomplete (rarely complete) right bundle branch block. Right ventricular hypertrophy may also be present. Cardiac fluoroscopy will show evidence of a left-to-right intracardiac shunt, a cardiac enlargement, a right ventricular hypertrophy, a prominent pulmonary artery, enlarged pulmonary vascular channels, and usually a small aorta.

The final and most important diagnostic procedure is cardiac catheterization, which will show in-

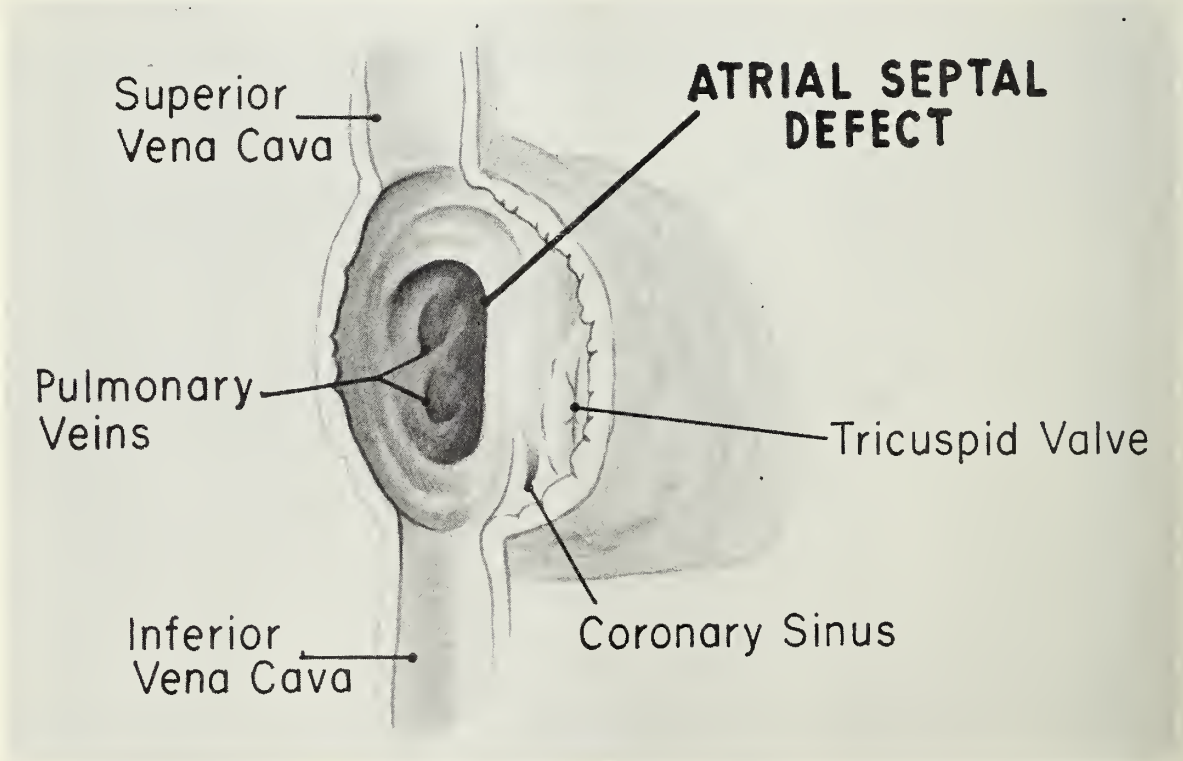


Figure 3. Ostium secundum defect. Note the complete rim of septal tissue surrounding the defect.

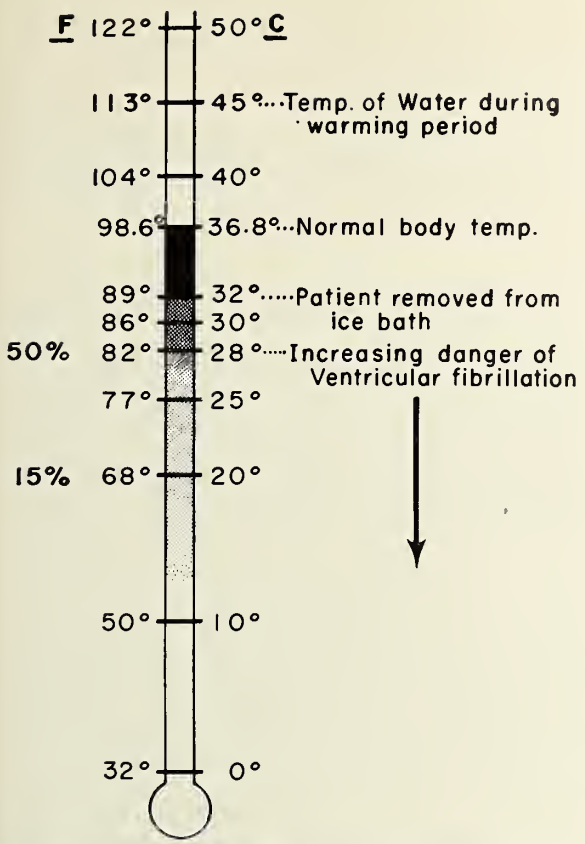


Figure 4. Temperature scale illustrating points of importance during hypothermia.

creased oxygen saturation values in the right atrium. This is diagnostic, barring the presence of anomalous pulmonary venous return into the right atrium. Interatrial septal defect cannot be distinguished from anomalous pulmonary venous return by means of the usual catheterization technics. Associated cardiac defects can also be detected by cardiac catheterization, and an awareness of their presence is of the greatest importance to the surgeons in planning the surgical procedure.

USE OF HYPOTHERMIA IN CLOSURE

The main purpose of lowering the body temperature is to reduce the oxygen needs of the body tissues. If the patient's body temperature is lowered 1° C., its metabolic needs are reduced about 6 per cent. Lowering the body temperature to a level of 28° C. reduces the metabolic needs of the body about 50 per cent. The hypothermic temperatures which we have used in our series of patients have varied between 28° and 24° C. We aim to keep the patient's rectal temperature at a level of about 27° C. The incidence of ventricular fibrillation increases as the patient's body temperature drops below this level (Figure 4). Because of the reduced oxygen requirement, the tolerance that certain body organs have to a lack of oxygen can be prolonged sufficiently to permit cessation of circulation by means of complete occlusion of all inflow and outflow tracts of the heart. Thus, the surgeon has adequate time for carrying out certain open intracardiac operative procedures under direct vision in a bloodless field. The average occlusion time in our series of patients was seven minutes. Since interatrial septal defects are amenable to this type of procedure, one is assured of complete closure, with elimination of all blood shunts between the auricular chambers (Figure 5).

ANESTHESIA

Several factors influence the choice of anesthetic agents for these patients. As the hypothermia develops, there are gradually decreasing needs for analgesic drugs, and probably a decreasing rate of destruction of those agents which the patient must metabolize. During rewarming, it is important that drugs which interfere with the maintenance of normal metabolic activity be minimized. Consequently, the agent used in all cases in this series was di-ethyl ether—a flexible inhalation, non-metabolized drug. Premedication in all instances consisted of morphine and scopolamine. Induction with nitrous oxide was followed by increasing concentrations of ether until orotrachial intubation could be accomplished. Thereafter, ether concentrations were decreased as cooling progressed, so that in almost all instances only nitrous oxide and oxygen were given when the patient's body temperature was below 30-32° C.

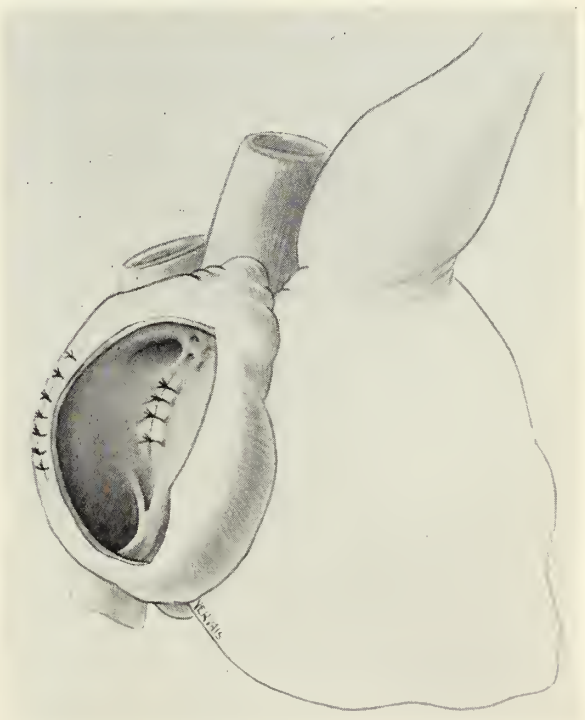


Figure 5. Illustrating schematically the closed interatrial septal defect and the closed right auriculotomy incision.

Apparently, the combined effects of morphine, nitrous oxide and hypothermia met the surgical requirements. Ventilation was controlled by manual compression of the rebreathing bag. During the entire period of anesthesia, cooling, surgery and rewarming of the patients, the heart action was monitored by a continuously direct-writing electrocardiograph. The prevention of shivering is very important, and was accomplished through the intravenous administration of small doses of chlorpromazine before the cooling was begun. This method was considered preferable to curarization or the use of deeper inhalation anesthesia.

Cooling was accomplished by immersion in ice water (Figure 6). Rectal temperature was constantly recorded by a specially designed thermocouple and recording apparatus. Since there is a further temperature drop of 5 or 6° C. after the patient has been removed from the ice bath, the patients were taken from the immersion tub when rectal temperatures had reached 33° C., and in some instances 32° C. The resultant lowest temperature, therefore, was usually around 27° C. Because the room temperature is cooler than that, and because of the depressed metabolic activity of the patient, spontaneous warming within the time period of surgery is not a problem. To restore normal body temperature, re-immersion in warm water (temperature 48° C.) is necessary at the end of the operation.

COMPLICATIONS OF HYPOTHERMIA

This technic, however, is not without dangers and complications. We experienced ventricular fibrillation in 11 of 23 patients subjected to open cardiotomy. Most commonly, it occurred after the septal defects had been closed and at the time that circulation was reestablished. In one instance, ventricular fibrillation occurred during the beginning of the operative procedure, but the patient recovered completely after closure of the defect and a cardiac resuscitation period of 2 hours and 45 minutes. To prevent this complication, we have not relied entirely on blockade of the sino-auricular node by procaine, prostigmine given into the coronary circulation, or 5 per cent carbon dioxide in the respiratory gases. If ventricular fibrillation occurred, cardiac resuscitation and conversion to ventricular rhythm and eventually to sinus mechanism were accomplished in all but two instances by manual compression of the heart and often-repeated electric defibrillation. In some instances, if the fibrillation of the ventricular musculature became very fine, and if continued cardiac massage would not restore the normal pink color to the myocardium, one or two milliliters of adrenalin chloride 1:10,000 solution was injected into the left auricle. This, again, was followed by manual cardiac compression and electric defibrillation, with conversion to ventricular rhythm. In the two instances previously mentioned, ventricular fibrillation occurred in patients with irreparable lesions and pulmonary hypertension, and death took place on the operating table.

In one patient, we observed air embolism into the right coronary artery. By careful manual massage, we moved the intracoronary air along the coronary artery into the venous communications without ill effect to the patient.

RESULTS

Uncomplicated interatrial septal defects of the ostium-secundum type rarely lead to serious difficulty in patients under the age of four years. Children below that age who have episodes of cardiac failure, pulmonary hypertension and reversal of blood flow through the interatrial defect, with resulting peripheral systemic arterial oxygen desaturation, usually do not fall into the uncomplicated group of ostium-secundum defects. Associated lesions, the presence of a common atrio-ventricular canal, or an ostium-primum type defect producing early pulmonary artery hypertension are the lesions usually encountered in this group. The results in these children have been the poorest for the above-mentioned reasons.

The best results have been obtained in patients beyond the age of five years who had ostium-secundum defects and only moderately elevated pulmonary artery pressures. Older patients who were subjected to surgical exploration and closure of the defects also made remarkable recoveries. The oldest patient was 48 years of age. We feel that patients in the older age group should not be denied the opportunity of surgical correction merely on the basis of their having survived longer than might normally have been expected (Table 1).

In three instances, an ostium-primum defect



Figure 6. Showing a patient during the induction of hypothermia in the ice water bath. Some of the necessary equipment can be seen.

TABLE 1

OSTIUM SECUNDUM TYPE DEFECTS

	Pts.	Died
Without other anomalies	10	1*
With partial anomalous venous return	2	0
With patent ductus arteriosus and pulmonary hypertension	1	1
With pulmonary valvular stenosis (Trilogy of Fallot)	2	0
	15	2

(* Death due to severe pulmonary hypertension)

was encountered during cardiac exploration, and closure either was not attempted or was abandoned, but all three patients survived. Of four patients in whom closure of an ostium-primum defect was accomplished, only one survived. The other three died of cardiac failure, either during surgery or in the postoperative period (Table 2).

SUMMARY

We have presented a short résumé of the experience gained at the State University of Iowa Hospitals in the closure of interatrial septal defects. Our experience in the correction of these defects supports the contention of others that open cardiotomy and direct suture in a bloodless field constitutes a good and a relatively safe method. Hypothermia has been found practical and not particularly hazardous to patients having correctable defects.

TABLE 2

OSTIUM PRIMUM TYPE DEFECTS

	Pts.	Died
Defects closed (one with coarctation of aorta)	4	3
Defects explored and not closed (one patient with anomalous venous return, one patient with anomalous left superior vena cava and left azygos vein draining into giant coronary sinus)	3	0
Common atrio-ventricular canal (partial closure)	1	1
	8	4

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Coming Meetings

In State

Sept. 13-14	**Postgraduate Course and Annual Meeting.** Iowa Academy of General Practice. Savery Hotel, Des Moines

Out of State

Aug. 1-6	**First International Congress on Human Genetics.** Copenhagen, Denmark
Aug. 6-17	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Aug. 20-31	**Serology of Syphilis.** V-D Research Laboratory, Chamblee, Georgia
Sept. 3-5	**Am. Assoc. of Blood Banks.** Somerset Hotel, Boston
Sept. 4.-15	**Regional Anesthesiology.** New York University, NYC
Sept. 6	**Preventive Medicine Aspects of City-County and School Health Units.** Univ. of Nebraska College of Medicine, Omaha
Sept. 9-13	**International College of Surgeons.** Palmer House, Chicago
Sept. 9-14	**American Congress of Physical Medicine and Rehabilitation.** Ambassador Hotel, Atlantic City
Sept. 10-14	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 10-21	**Gastroscopy and Gastroenterology.** Cook County Graduate School of Medicine, Chicago
Sept. 10-21	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 10-22	**Recent Advances in Surgery.** New York University, NYC
Sept. 17-21	**Dermatologic Histopathology.** New York University, NYC
Sept. 17-21	**Histopathology.** New York University, NYC
Sept. 17-21	**Ocular Expressions of Systemic Disease.** New York University, NYC
Sept. 17-21	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Sept. 17-21	**Electrocardiography and Heart Disease: Advanced Course.** Cook County Graduate School of Medicine, Chicago
Sept. 17-22	**Review of Clinical Pediatrics.** New York University, NYC
Sept. 17-28	**Normal & Pathologic Physiology: Functional and Chemical Aspects.** New York University, NYC
Sept. 17-28	**Serology of Syphilis.** V-D Research Laboratory, Chamblee, Georgia
Sept. 17-28	**Diagnostic X-ray.** Cook County Graduate School of Medicine, Chicago
Sept. 17-28	**Office & Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Sept. 17-28	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Sept. 24-26	**Audiology.** New York University, NYC
Sept. 24-28	**Ophthalmoscopy.** New York University, NYC
Sept. 24-28	**Dermatology and Syphilology for Pediatricians.** New York University, NYC
Sept. 24-28	**Esophageal Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 24-Oct. 5	**Internal Medicine.** Cook County Graduate School of Medicine, Chicago
Sept. 24-Oct. 5	**Surgical Anatomy & Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 25-27	**Pediatrics for Pediatricians.** University of Minnesota Center for Continuation Study, Minneapolis
Sept. 26-28	**Neuro-otolaryngology.** New York University, NYC



MEDICAL LIBRARY PASSES MILESTONE

On July 12, the Iowa State Medical Library accessioned its 50,000th volume, an objective toward which the librarian, Jeanette Dean-Throckmorton, M.D., says she has been aiming for many, many years. Even without the file of more than 100,000 unbound periodicals which the Library possesses and which adds considerably to its usefulness to the medical profession, 50,000 bound volumes make it a larger collection than those that many highly reputable small colleges have assembled.

Dr. Dean-Throckmorton has another good reason for smiling this summer. At long last, the state government has arranged to let her have about one-third more room in which to house the Library. Heretofore, the State Traveling Library, a state-owned institution that lends books of all sorts chiefly to rural libraries and schools, had overflowed from the basement and first floor of the east wing of the Historical Building, onto the second floor of that wing, where the Medical Library is located, leaving no room in which the staff could shelve current acquisitions, and no more than cramped quarters for the doctors who came to the Medical Library to study reference materials. Now that Dr. Dean-Throckmorton has the whole of the east wing's second floor, she feels that her space problem has been solved, at least for the immediate future.

Her remaining problem, though it is a serious one, is common to all of us—shortage of funds. As she says, "Buying medical texts and monographs is considerably more expensive, per item, than buying copies of THE THREE BEARS." In fact, ten dollars is no more than a conservative estimate of the average price per volume, even after one has subtracted the discount to which the Library is entitled. If the Library is to be kept up-to-date and maximally useful, more book-buying money must be made available.

And though Dr. Dean-Throckmorton hasn't said anything about it, salaries are another expense category in which the Library has been on short rations. A great deal has been said—and quite properly, too—about the starvation wages that teachers have been paid. But if one examines the accompanying tabulation, and does a little simple arithmetic, he arrives at some utterly astounding answers. Besides the librarian, the staff includes three other women and a man, all of whom work full time. Dividing the current salaries budget, $16,685, by five, one finds that the average wage for the Library staff members is $3,537 per year.

IOWA STATE MEDICAL LIBRARY BUDGET

	1952-1953	*1953-1954*	*1954-1955*	*1955-1956*
Books	$ 4,107.72	$ 3,737.71	$ 4,421.40	$ 5,003.40
Periodicals	2,557.44	3,137.57	2,444.83	2,511.34
Printing & Binding	3,166.29	2,151.18	1,890.10	2,375.98
Salaries	14,670.00	15.487.50	15,645.00	16,685.00
State's Share of Retirement	548.60	804.73	841.48	902.42
Travel	195.41	nil	87.60	228.52
Miscellaneous	35.00	35.00	35.00	35.00
	$25.280.46	$25,353.69	$25,365.41	$27,741.66

For people whose work is highly important in postgraduate medical education and who do their tasks efficiently and conscientiously, salaries of that size are downright incredible!

As evidence of the dedication of her subordinates, Dr. Dean-Throckmorton points out that every one of her staff has been in the Library's employ for at least five years.

Though we wish there were something more substantial that we could do, we should like to take this opportunity publicly to thank Dr. Dean-Throckmorton and her assistants for a job well done!

INTRAVENOUS UROGRAPHY IN GENERAL PRACTICE

The use of intravenous urography as a diagnostic tool has increased steadily in the past 20 years. At present it is nearly a routine procedure in the course of a urological work up.

Its use in general practice, however, has been limited, chiefly because of the low percentage of satisfactory examinations within the limited scope of the radiographic equipment found in most offices and the previously available low concentration contrast media.

The development of contrast media of high concentration, in the past few years, has resulted in a much higher percentage of satisfactorily diagnostic films. Now films of much better quality are almost invariably easier to obtain.

It is obvious that an adequate examination of the urinary tract is impossible without radiographic visualization of the kidneys. The corollary, therefore, is that if renal disease is to be ruled out, an x-ray study is always indicated. This has its application in many problems. The presence or absence of renal function and the use of delayed films to show evidence of delayed function, and perhaps establishment of the position of a non-opaque or poorly visualized calculus may quickly resolve the etiology of an abdominal pain and frequently save the patient needless hospitalization for the passage of a small, low-lying stone. On the other hand, the presence of a normal pyelogram is frequently a most reassuring support for a probable diagnosis of intra-abdominal

pathology of which the signs and symptoms are rather obscure. Here, then, is a readily available diagnostic tool that has a high margin of safety and can greatly add to the armamentarium of the rural practitioner.

ATHLETE'S FOOT IS NON-CONTAGIOUS

The skin of most people's feet appears to be remarkably capable of sloughing off, killing or inhibiting large masses of fungi, with the result that exogenous exposure plays no more than a minor role—if any at all—in the development of acute attacks of fungous disease. R. L. Baer *et al.*[1] placed dermatophytes on circumscribed areas of undamaged skin on the feet of 22 volunteers, 15 of whom showed mycological and clinical evidence of fungous infection. Twenty-four hours later, they could find fungi neither by microscope nor by culture on the feet of 12 of them. Of those in whom the results were completely negative, 8 (out of 15) had had fungous infection, and 4 (out of 7) had had none.

The foot skin of persons with fungous disease may have a greater capacity to maintain viable culturable fungi. There are some investigators who have come to that conclusion. But Baer *et al.* found no such tendency in their small series of cases.

Another study by virtually the same researchers[2] has shown convincingly that exposure to fungi in swimming pools, shower stalls, bathrooms, etc. is no more than a negligible cause of foot infection. Forty-five subjects micologically free of disease were exposed deliberately to masses of pathogenic fungi in footbaths, but not one of them contracted a fungous ailment during the ensuing six weeks.

"As repeatedly stressed by certain dermatologists in the last 25 years," the authors point out, "it is the decreased resistance of the skin of the human host, with a resultant activation of the pathogenic fungi previously lying dormant as opportunists on the patient's own feet, which is usually responsible for such attacks."

The common dermatophytes are "faculative pathogens" or "opportunists," often and perhaps usually present on clinically healthy skin and in such places as the nails and calluses of the feet. Favorable local conditions, such as "lowered resistance," enable these fungi to cause disease. Since exogenous exposure seems to be practically unpreventable, and since it plays only a minor role in the causation of fungous disease, "preventive" measures must be based at present on maintenance and increase of local resistance to foot infection.

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REVISED PRINCIPLES OF MEDICAL ETHICS

The AMA House of Delegates, at its June meeting in Chicago, adopted a reference committee report approving the revision of the Principles of Medical Ethics that had been prepared by the Council on Constitution and By-Laws and endorsed by the Judicial Council. The reference committee and both Councils recommended that final action be deferred until the Seattle clinical session "to allow ample opportunity for thorough study on the part of the members of the AMA."

House action in Chicago followed submission of a report by Dr. Louis A. Buie, chairman of the Council on Constitution and By-Laws, which said, among other things, that "there exists a broad twilight zone in which the concepts of ethics and etiquette are entangled and in which there is much overlapping and consequent confusion."

"The present Principles," the report said, "are encumbered by verbosity and qualifying constructions of dubious value which in themselves engender confusion. Hence, it was felt that the Principles should be broad and should provide a framework within which interpretations could be made. They should deal with basic principles which can serve as a ready reference for the busy practitioner."

A salient point in the report said: "It is important to understand that medical ethics are not distinct or separate from ethics generaly, but simply emphasize those general principles which are of particular concern to the medical profession. The ethical physician will observe all ethical principles because he realizes that they cannot be enforced by penal reprisals, but must be binding in conscience."

The Principles as revised consist of a brief Preamble and 10 sections which succinctly express the fundamental ethical concepts embodied in the present Principles. "Every basic principle," the Council report said, "has been preserved. On the other hand, as much as possible of the prolixity and ambiguity which in the past obstructed ready explanation, practical codification and particular selection of basic concepts has been eliminated."

The 10 proposed sections are as follows:

1. The prime objective of the medical profession is to render service to humanity with full respect for both the dignity of man and the rights of patients. Physicians must merit the confidence of those entrusted to their care, rendering to each a full measure of service and devotion.

2. Physicians should strive to improve medical knowledge and skill, and should make available the benefits of their professional attainments.

3. A physician should not base his practice on an exclusive dogma or a sectarian system, nor should he associate voluntarily with those who indulge in such practices.

4. The medical profession must be safeguarded against members deficient in moral character and

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AGRONOMY

professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

5. Except in emergencies, a physician may choose whom he will serve. Having undertaken the care of a patient, the physician may not neglect him. Unless he has been discarged, he may discontinue his services only after having given adequate notice. He should not solicit patients.

6. A physician should not dispose of his services under terms or conditions which will interfere with or impair the free and complete exercise of his independent medical judgment and skill or cause deterioration of the quality of medical care.

7. In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him to his patient.

8. A physician should seek consultation in doubtful or difficult cases, upon request or when it appears that the quality of medical service may be enhanced thereby.

9. Confidences entrusted to physicians or deficiencies observed in the disposition or character of patients, during the course of medical attendance, should not be revealed except as required by law or unless it becomes necessary in order to protect the health and welfare of the individual or the community.

10. The responsibilities of the physician extend not only to the individual but also to society and demand his cooperation and participation in activities which have as their objective the improvement of the health and welfare of the individual and the community.

MUTATION DANGERS FROM RADIATION

A 16-member Committee on Genetics, concluding a year's study under the National Science Foundation, recommends tight controls to protect the general public from the harmful effect of radioactivity upon heredity. It advises:

1. Medical use of x-ray should be reduced as much as possible, consistent with medical necessity. The average exposure of human reproductive cells to radiation (above the natural background) should be limited to 10 roentgens to age 30, and in no case should an individual be exposed to more than 50 up to 30 years of age.

2. Records of cumulative lifetime exposure to radiation should be kept for every person.

The Committee says, "The basic fact is—and no competent persons doubt this—that radiations produce mutations and that mutations are in general harmful. It is difficult, at the present state of knowledge of genetics, to estimate just how much of what kind of harm will appear in each future generation after mutant genes are induced by radiations. Different geneticists prefer differing ways of describing this situation; but they all come out with the unanimous conclusion that the potential danger is great."

POSTGRADUATE COURSE EXPENSE IS EXEMPT

It had been our impression everyone knew that the expenses a doctor incurs in attending postgraduate medical short courses are, in most instances, deductible from taxable income. But the Postgraduate Affairs Department of the University of Nebraska College of Medicine reports having received numerous inquiries in that regard. In consequence, we reprint an account of a legal precedent* and a summary of a new regulation that is being promulgated this month. We intend what we say, however, to be regarded as information, rather than as advice. Doctors should consult their attorneys before claiming deductions.

"On April 14, 1953, the United States Court of Appeals for the Second Circuit of New York, ruled that the reasonable expenses incurred by a professional man for postgraduate education are deductible for income tax purposes under Section 23 (a) (A) of the Internal Revenue Code in the case of George G. Coughlin vs. Commissioner of Internal Revenue, Docket No. 22487.

"In the case before the court, a lawyer had attended a postgraduate course in federal taxation at New York University, and incurred expenses of $305 for tuition, travel, board and lodging. He claimed these as necessary business expense in his income tax return, but the deduction was disallowed by the Commissioner of Internal Revenue. The taxpayer's appeal to the United States Tax Court was unsuccessful, but the United States Court of Appeals reversed the ruling and directed that the deduction be allowed in full. The latter decision was not appealed to the Supreme Court by the government attorneys, and it became final on July 14, 1953."

The new regulation of the U. S. Internal Revenue Service, effective August 9, 1956, provides that a doctor's expenses for education are deductible if they are for a "refresher" course to maintain the skills required in his practice and to keep him abreast of current developments in the profession. The course (1) must be of short duration; (2) must not be taken "on a continuing basis" (whatever that may mean); and (3) must not earn academic credit for the doctor. Expenses incident to a doctor's preparing to enter a specialty are *not* tax exempt.

* From a pamphlet listing the 1956-1957 Postgraduate Courses of the University of Nebraska College of Medicine.

A Place for Women in Medicine?

"Gretchen, you know you just want to be a housewife. . . . Why don't you go home? . . . You don't have to come to medical school to catch a man!"

These are a few of the comments which Gretchen Glode, the only girl in a sophomore class of 79 at the University of Nebraska's Medical College, has to put up with day after day from her male classmates. Yet it seems that their remarks, rather than being seriously intended, are meant only to tease her. Most of the male students seem favorably disposed to the idea of women medics. Asked if having a girl in the class hampers their studies, their immediate reply is that it "makes no difference at all." How does Gretchen feel about it? She points out that in high school science courses and a pre-medical course in college she was conditioned for the comments that come from her fellow students.

Admittedly, there are some students, and some faculty members, who feel that women have no place in medicine. They believe that women will marry and drop out of practice. Meanwhile, they will have kept male students from studying medicine and, as a consequence, will have deprived communities of doctors.

Just what are the facts?

Today, 350 (5 per cent) of the 7,500 medics who graduate from our 81 medical schools each year are women.

In surveying an urban community, University of Illinois researchers found that about 70 per cent of women doctors marry, but of married women doctors, 75 per cent are engaged in full-time practice. The study showed that less than 3 per cent of women graduates who had been out of school 10 or more years had retired from active practice.

Another survey disclosed similar facts. JAMA reported the results of a survey of 1,240 women graduates from Columbia, Cornell, John Hopkins, New York University, Yale, University of Pennsylvania and Woman's Medical College of Pennsylvania. Eighty-two per cent of the married women questioned had entered and had remained in fulltime practice.

GRETCHEN'S TRIALS ARE TRADITIONAL

Elizabeth Blackwell, one of nine children in an immigrant family of the early 1800's, blazed the trail for modern women in medicine, not only in the United States but also in England. After applying to nearly all of the medical schools in the East and Middle West, she was admitted to Geneva College, in Geneva, New York, almost as a joke. The faculty, not willing to admit her but reluctant to reject her application, presented the problem to the students. The students were polled, the understanding being that if just one vote were cast against her, she would be refused. The students, treating the matter as a jest, voted 100 per cent for her admission.

Miss Blackwall learned to take rebuffs in stride during her medical courses and later in the hospitals where she gained clinical experience. And later, as Dr. Blackwell, she aided future women medics by establishing the New York Infirmary for Women, where other women doctors could study and practice without facing the hardships which she had encountered.

Why is it, then, if women were "emancipated" in medicine during the 1850's, that there are so few women in the profession today? The ratio of 5:100 has remained constant for many years.

Probably the male student has a part of the answer when he says that the field is to strenuous for women. The hours are long and. physically, the demands are great. There is also the indisputable fact that women are primarily interested in doing a good job of raising the next generation.

But though their numbers remain small, there can be no question that there *is* a place for women in medicine. Just a few months ago, Dr. Emma Moss was chosen by a national magazine as one of the six "Most Successful Women of the Year." She is head of the Pathology Department in the largest general hospital under one roof—Charity, in New Orleans. Dr. Florence Sabin, first woman to graduate from Johns Hopkins, was considered one of the three greatest doctors in the world. Helen Taussig, another well-known woman doctor, is acclaimed for her work with Dr. Alfred Blalock in creating the "blue baby" operation.

Gretchen Glode, the lone sophomore woman student in medicine at the University of Nebraska, has planned since she was all of 8 years old to be a medical missionary. She is now two years on the way to achieving her goal.

—Adapted from "Is There a Place for Women in Medicine?" by Julia Burns, in THE NEBRASKA ALUMNUS, June, 1956.

POSTGRADUATE TUMOR CONFERENCE

December 7 and 8, 1956, on the tenth anniversary of its establishment, the Iowa Division of the American Cancer Society will join with the Postgraduate Education Division of the SUI College of Medicine in sponsoring a Postgraduate Tumor Conference at Iowa City.

The program will consist of a series of talks and symposia. Advance registration is encouraged.

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

PHYSICAL DIAGNOSIS, Fifth Edition, by *Ralph H. Major,* M.D., and *Mahlon H. Delp, M.D.* (Philadelphia, W. B. Saunders Co., 1956. $7.00).

THE MORPHOLOGY OF HUMAN BLOOD CELLS, by *L. W. Diggs,* M.D., *Dorothy Sturm,* and *Ann Bell.* (Philadelphia, W. B. Saunders Co., 1956. $12.00).

TEXTBOOK OF UROLOGY, by *Victor F. Marshall,* M.D. (New York, Paul B. Hoeber, Inc., 1956. $5.50).

ANATOMY FOR SURGEONS, Vol. 2, by *W. Henry Hollinshead,* Ph.D. (New York, Paul B. Hoeber, Inc., 1956. $20.00).

A DOCTOR'S MARITAL GUIDE (New Edition), by *Bernard R. Greenblat,* M.D. *(Separate versions for Roman Catholics and for others.)* (Chicago, The Budlong Press, 1956. $1.50).

TREATMENT OF HEART DISEASE, by *Harry Gross,* M.D., and *Abraham Jezer,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $13.00).

THE RECOVERY ROOM, by *Max S. Sadove,* M.D., and *James H. Cross,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $12.00).

PEDIATRIC X-RAY DIAGNOSIS, Third Edition, by *John Caffey,* M.D. (Chicago, The Year Book Publishers, Inc., 1956. $28.00).

LYSERGIC ACID DIETHYLAMIDE AND MESCALINE IN EXPERIMENTAL PSYCHIATRY, ed. by *Louis Cholden,* M.D. (New York, Grune & Stratton, Inc., 1956. $3.00).

BOOK REVIEWS

THE MENNINGER STORY, by *Walker Winslow.* (New York, Doubleday & Company, Inc., 1956. $5.00).

This 337-page biography of Charles Frederick Menninger, a homeopathic physician, together with his wife and his family, is the work of an author who is well known in the field of psychiatric writing. It traces the development of Dr. Menninger from his birth to his death in 1953, and concludes with the remark that "the medical historians who look for the clue to the Menningers' success must find it in the Menninger home." Thus the book is, in a fashion, a success story, but it is a rather novel sort of one, for it concerns itself with fact rather than with fancy. It is, of course, written sympathetically and understandingly.

Besides tracing the life of Charles and Flo Menninger, the book traces the development of the Menninger Foundation, an organization now known for its outstanding work in psychiatry, but one which was not originally set up to specialize in that field. In addition to the story of the elder Menninger, the early life and development of his children are traced. The lives of those men, since they have been intimately associated with the development of the Menninger Foundation, have quite properly been made an integral part of the book.

To this reviewer, the story of the growth of the Menninger Foundation and the lives of the people concerned with it, together with the trials they experienced and the efforts they made, has been intensely interesting. A considerable amount of space is devoted to the personal histories of the participants through World War II and subsequently. Their difficulties in adjusting their point of view to that of the Armed Services is outlined. An interesting bit of a letter from Dr. Allan Gregg is incorporated into the book, and I take it that it has been quoted directly. This type of information can well become extremely valuable to the historians of the future.

This reviewer believes the book to have been well worth writing, and to be well worth reading by those interested in the history of medicine.—*Howard V. Turner,* M.D.

THE YEAR BOOK OF ENDOCRINOLOGY, 1955-1956 Year Book series, ed. by *Gilbert S. Gordon,* M.D., (Chicago, The Year Book Publishers, Inc., 1956. $6.00).

Endocrinology continued to make great strides during 1955 and the first half of 1956. The reviewer, for one, is unable to keep abreast of the rapidly unfolding developments. For such a situation this Year Book helps fill a great void.

Like those of previous years, the current edition is nicely arranged into sections dealing with each of the endocrine glands in turn, and at the beginning of each such section, there is a general review of the progress of the past year. The most important articles are then presented in condensed form so that a reader can usually learn all he needs without referring to the original papers. The editor makes frequent clarifying comments after his abstracts.

The final section deals with the endocrine treatment of neoplastic diseases. That series of abstracts is short and useful.—*Arthur G. Lueck,* M.D.

TEXTBOOK OF MEDICAL PHYSIOLOGY, by *Arthur C. Guyton,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $13.50).

The author of this newest of physiology textbooks for medical students does a masterful one-man job of presenting the science of physiology in an up-to-date and interest-stimulating fashion.

As professor and chairman of the Department of

Physiology and Biophysics at the University of Mississippi School of Medicine, Dr. Guyton must have a close familiarity with the needs of students. He includes more of the contemporary phases of physiology than have the authors of many other textbooks—e.g., aviation, deep-sea diving and nuclear medicine.

The work is of greatest value and interest to the student, but should serve as an excellent reference book for the practicing physician, too.—*M. E. Alberts*, M.D.

Bellevue Is My Home, by *Salvatore R. Cutolo*, M.D. (New York, Doubleday & Company, Inc., 1956. $4.00).

This is the story of Bellevue Hospital, in New York City, as seen and related by an assistant administrator with long tenure and intimate knowledge. It is in part a history of the hospital, but is primarily a "tour" through the famous institution, with explanations of the various components and their workings.

This reviewer, as a former Bellevue interne, believes that the book gives a clear and inclusive view of the hospital and how it works. But at the same time, he believes that somewhere along the way the spirit that pervades the hospital has been missed. The book fails to leave the reader a feeling of familiarity with the people who work or are treated there. It fails to portray the roughness and the kindness that paradoxically are companions in New York City, and are nowhere more evident than in Bellevue. It claims for the Hospital a reputation for research and teaching, but fails to emphasize that the hospital's overriding dedication is to the treatment of the individual patient. It forgets that research is secondary, teaching is secondary, and both are often difficult to accomplish because of the demands of a more primary duty: the care and treatment of the sick. The greatness of the institution lies fundamentally in the people who undertake those responsibilities.

There is more of Bellevue in the story of O'Toole, the alcoholic tuberculosis patient, than there is in the dramatized account of an operation for the correction of an aortic aneurysm. The former is the tale of an individual; the latter of an event.

The book is interesting because the hospital is fascinating, but it makes the reader no more than a "sight-seer."—*Daniel F. Crowley, Jr.*, M.D.

1955-1956 Year Book of Orthopedics & Traumatic Surgery, ed. by *Edw. L. Compere*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $6.50).

Under the editorship of Dr. E. L. Compere, the advances made during 1955-1956 in these fields of surgery are presented succinctly, and the summaries are accompanied by many fine illustrations.

The increasing prevalence of whiplash injuries to the cervical spine has been particularly noted. Additional uses of hydrocortisone are presented. Several new technics have been reviewed. As they did its predecessors in the series, all physicians will find this volume an essential addition to their libraries.—*Everett M. George*, M.D.

NEW TELEVISION SERIES BEING FILMED

Filming of a new ISMS television series is now in progress at Broadlawns-Polk County Hospital, Des Moines. For the most part, the shows in the preceding series ("Your Health" and "Medical Diary") were performed live in the studios of WOI-TV, Ames, against stage sets that provided no more than simulated doctor's-office, laboratory or hospital backgrounds. And the kinescope technic that was employed in providing reproductions of the programs for broadcast over other television stations, though reasonably good, left something to be desired.

The movie-making equipment now being used by Mr. Ray Stewart and his staff is being taken into all parts of Broadlawns Hospital, so that the backgrounds for the new shows may be complete and authentic in every detail. And the film it produces will enable all of the participating television stations to achieve uniformly good broadcasts.

The Broadlawns programs are planned to include presentations of bloodtyping procedures, biopsy, x-ray and rehabilitation of cardiac patients. In addition, preparations are being made for the filming of two programs on surgery, in one of which a portion of a gallbladder operation may be included.

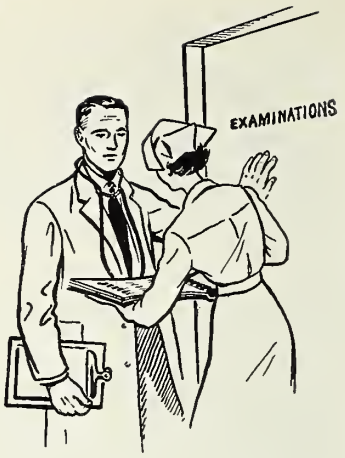
Arranagements are as yet incomplete, but it is expected that sometime this month KRNT-TV, Des Moines, will begin showing the programs in the new series, one each week. Shortly thereafter, the other five Iowa stations that are cooperating with the Society (KQTV, Fort Dodge; KGLO-TV, Mason City; KCRG-TV, Cedar Rapids; KTIV-TV, Sioux City; and KWWL-TV, Waterloo) will start broadcasting them.

In addition to the Iowa television stations just named, ISMS video programs are currently being shown over stations in St. Louis, Missouri, and Milwaukee, Wisconsin.

COURSES IN CHEST DISEASES

The American College of Chest Physicians will sponsor two postgraduate short courses this fall. One is to be held at the Hotel Knickerbocker, in Chicago, October 15-19, and the other at the Park-Sheraton Hotel, in New York City, November 12-16. Tuition for each course will be $75, and there will be no additional charge for the roundtable luncheons. The most recent advances in the diagnosis and treatment of chest diseases will be covered. Additional information can be obtained from the College, 112 East Chestnut Street, Chicago 11.

THE DOCTOR'S BUSINESS



Planning Your Office—II

MILLARD K. MILLS
WATERLOO

Last month, we discussed the reception room, the business office, the laboratory and the examining rooms. Let us continue by talking about the consultation office. Although some doctors feel that a combination examining room and consultation office is quite satisfactory, we are inclined to feel that patients prefer a separate consultation office. Somehow, the patient feels that it is easier to talk with a doctor in what appears to be a private office, rather than in a room where he is surrounded by an examining table, an instrument cabinet and other medical equipment.

Other things favor a separate consultation office, too. Certainly if the patient is disrobed and if consultation will take more than a few sentences, you will not attempt to begin asking your questions or giving your instructions until he or she is dressed. It is a simple matter to request the patient to dress and to say that your nurse will point out your office, where you will have something further to say. Then, while the first patient is dressing, you can be seeing someone else, and as soon as the first individual comes to your office, your assistant can prepare the examining room, bring someone else to it and get him ready for examination. In that way your having a private office helps to smooth the flow of patients through your office.

Finally, for your own convenience, it is nice to have a private place where you can talk with business acquaintances, see detail men, family or friends, or take care of personal matters without tying up an examining room.

For these reasons, we strongly recommend your having a private consultation office. A room 8′ x 10′ is certainly adequate, and an even smaller one would do. A desk, a bookcase and two chairs are usually all the furniture that is required. Of course, if you have the space, you may prefer a more pretentious office.

Many doctors seem to feel that it is desirable to have the consultation office located between the examining rooms, and we agree. However, we do not suggest your having doors opening directly into the examining rooms from your office. If the rooms are adjacent, it takes only a few extra steps for you to go into the hall and from there to the examining rooms. Having three doors in your office uses a good nine feet of wall space, and in an average office, one doesn't have it to spare without damaging the appearance and convenience of the room. Besides, doors lessen the effectiveness of your soundproofing, and you certainly don't want to risk having a conversation in your office overheard in an adjoining examining room!

THE PEDIATRIC EXAMINING ROOM

If you see a great many children, or if your specialty is pediatrics, you will want to conserve space by providing smaller examining rooms. In the case of a general practitioner with a large pediatric practice, one or two such rooms will usually suffice. For infants, a room even as small as 5′ x 7′ may be adequate. For older children, you will want one 6′ x 8′ or a little larger.

RECOVERY ROOM

What is often called a "recovery room" usually doubles for a diathermy and/or electrocardiogram room. Since in addition to those machines, all of the equipment you will need is a cot and a chair, the room can be 8′ x 10′ or even smaller. The advantages of such a room are obvious. Your flow of traffic can continue while a patient receives a diathermy treatment, has an EKG, or rests after a difficult examination or treatment. Your type of practice will determine whether or not such a room would be helpful to you or your patients.

EMERGENCY ROOM

Another "extra" room which is often very convenient is the emergency room. It should be located close to the back door. It can then be used for isolation cases, accidents or the like, and will save the patients in the reception room from the dangers of contagion or the discomfort of viewing a badly injured person. A standard 8′ x 10′ room is generally desirable.

Mr. Mills is general manager of Professional Management.

Iowa Academy of General Practice

PROGRAM OF THE POSTGRADUATE COURSE AND ANNUAL MEETING

This program is presented at this time so that Doctors may begin to make their plans for attending this excellent session on September 13 and 14 at the Hotel Savery in Des Moines. You are asked to make your own hotel arrangements directly with the hotel. A block of rooms has been set aside for this purpose.

Thursday, September 13

8:15- 9:15 a. m. Registration

9:15- 9:30 a. m. Invocation
Rev. Edward P. Ingersoll, D.D., Des Moines, Iowa, Pastor of Cottage Grove Avenue Presbyterian Church
Greetings
Walter D. Abbott, M.D., Des Moines, Iowa, President, Polk County Medical Society

9:30-10:15 a. m. Pain Patterns in Abdominal Disease
Lucian A. Smith, M.D., Rochester, Minn., Asst. Prof. of Medicine, Mayo Clinic

10:15-11:00 a. m. Diagnostic & Therapeutic Nuggets
O. F. Rosenow, M.D., Columbus, Ohio, Instructor in Medicine, Ohio State University Medical School

11:00-11:15 a. m. VISIT EXHIBITS

11:15-12:00 Importance of Sudden Death in General Practice
William Bean, M.D., Iowa City, Iowa, Prof. of Medicine & Head of Dept. of Internal Medicine, State University of Iowa College of Medicine

12:15- 2:00 p. m. LUNCHEON
Address—M. Gladys Scott, Ph.D., Iowa City, Iowa, Prof. & Chairman Dept. of Physical Education for Women, State University of Iowa

2:00- 2:45 p. m. Use of Adrenal Steroids in Practice
H. Dalton Jenkins, M.D., Denver, Colo., Asst. Prof. of Medicine, University of Colorado Medical School

2:45- 3:00 p. m. VISIT EXHIBITS

3:00- 3:45 p. m. Disease of Left Colon
Lucian A. Smith, M.D., Rochester, Minn.

3:45- 5:15 p. m. ANNUAL MEETING AND ELECTION OF OFFICERS

Friday, September 14

8:30- 9:10 a. m. Registration

9:00- 9:45 a. m. New Therapeutic Methods in Dermatology
Roy L. Kile, M.D., Cincinnati, Ohio, Asst. Prof. of Dermatology, University of Cincinnati College of Medicine

9:45-10:30 a. m. Diagnosis of Hypertension
J. Harold Kotte, M.D., Cincinnati, Ohio, Asst. Prof. of Internal Medicine, University of Cincinnati College of Medicine

10:30-10:45 a. m. VISIT EXHIBITS

10:45-11:15 a. m. Diagnosis & Management in Peripheral Vascular Disease
Fay A. LeFevre, M.D., Cleveland, Ohio, Member of Staff Division of Medicine, Cleveland Clinic

11:15-12:00 Indications for Gastrectomy
Claude J. Hunt, M.D., Kansas City, Mo., Chief Surgical Section, Research Clinic

12:15- 2:00 p. m. LUNCHEON
Philip G. Green, Washington, D. C., Director Division of Juvenile Delinquency Service, Dept. of Health, Education and Welfare

2:00- 2:45 p. m. ERNEST E. SHAW LECTURE
Diagnosis & Treatment of Thyroid Disease
George Crile, Jr., M.D., Cleveland, Ohio, Member of Staff, Department of Surgery, Cleveland Clinic

2:45- 3:15 p. m. Treatment of Hypertension
J. Harold Kotte, M.D., Cincinnati, Ohio

3:15- 3:30 p. m. VISIT EXHIBITS

3:30- 4:00 p. m. Surgery of Blood Vessels (with movie)
Fay A. LeFevre, M.D., Cleveland, Ohio

4:00- 5:00 p. m. Question and Answer Panel

SUI GETS AEC CONTRACT

The College of Medicine at the State University of Iowa is the recipient of one of 20 life-science research contracts recently awarded by the Atomic Energy Commission. Eleven of the contracts are for research in medicine and nine in biology, the medical ones being for the support of basic studies in cancer. The Commission does not disclose the amounts of the awards.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

DIVISION OF VENEREAL DISEASE CONTROL

Semiannual Report, June 30, 1956

The Division's program of contact tracing and case finding was limited during the period covered by this report because of the loss of one of our field investigators. The remaining members of the field staff have used a great deal of their time in tracing gonorrhea contacts. Gonorrhea morbidity has, indeed, remained at a fairly high level. Syphilis morbidity, on the contrary, has appeared to undergo a sizable reduction in incidence, but the figures are probably deceptive, for we lost the services of the typist on our staff whose job it was to follow up the positive serologic reports received from the State Hygienic Laboratory by soliciting private physicians by mail for morbidity reports.

Through rearrangement of case loads, we feel that we can now maintain an adequate field program with our present staff, and a replacement has been found for the girl who conducted the private-physician solicitation program. The next six-months report should reflect this redirection of efforts.

A shortage of local diagnostic and treatment clinics and the inadequacies of existing ones have deterred our case-finding efforts. Obtaining adequate diagnosis and treatment for medically indigent persons in sparsely populated areas where there is no public clinic frequently poses a serious problem.

Penicillin for the treatment of reported cases was distributed as follows:

Private Physicians	155 vials (394,800,000 units)
Clinics and Institutions	200 vials (429,900,000 units)

MORBIDITY REPORT FOR MONTH OF JUNE

Disease	*June 1956*	*May 1956*	*June 1955*	*Most cases reported from these counties:*
Diphtheria	1	1	0	Hardin 1
Scarlet Fever ..	42	85	25	Polk, Des Moines, Floyd, Hancock, Black Hawk
Typhoid Fever.	14	21	2	Audubon 1, Benton 2, Buena Vista 2, Calhoun 1, Fayette 1, Keokuk 1, Marion 1, Muscatine 1, Tama 1, Van Buren 1, Warren 1, Worth 1
Smallpox	0	0	0	
Measles	2236	1402	467	Howard, Polk, Linn, Pocahontas, Kossuth, Story
Whooping Cough	59	47	69	Polk, Pottawattamie, Scott, Des Moines
Brucellosis	17	9	21	Fayette 2, others scattered 1 to a county
Chickenpox ...	442	731	142	Polk, Dubuque, Story, Scott, Des Moines
Meningococcus Meningitis ..	2	2	0	Polk 2
Mumps	191	233	250	Dubuque, Scott, Linn, Des Moines, Howard
Poliomyelitis ..	9	7	13	Lee 3, Carroll 1. Iowa 1, Jasper 1, Linn 1, Wayne 1, Webster 1
Infect. Hepatitis	43	40	48	Polk, Howard. Linn, Allamakee, Scott
Rabies in Animals	17	13	17	Johnson 2, others scattered 1 to a county
Malaria	1	0	3	Audubon 1 (out of state origin)
Psittacosis	0	1	0	
Q Fever	0	0	0	
Tuberculosis ..	75	41	34	For the State
Syphilis	96	46	76	For the State
Gonorrhea	80	41	41	For the State
Histoplasmosis	2	0	1	Boone 1, Story 1
Encephalitis ...	2	1	0	Carroll 2
Typhoid Carrier	2	0	0	Benton 1, Polk 1

VENEREAL DISEASE CASES REPORTED

Month	*Private Physicians*		*Clinics and Institutions*		*State Total*	
	Syphilis	*Gonorrhea*	*Syphilis*	*Gonorrhea*	*Syphilis*	*Gonorrhea*
January	28	48	14	33	42	81
February	20	43	21	33	41	76
March	35	40	17	18	52	58
April	34	20	10	7	44	27
May	34	25	8	24	42	49
June*	31	25	15	20	46	45
Total	182	201	85	135	267	336

* June Morbidity incomplete. First two weeks of month only.

POLIO VACCINE SENT TO IOWA DURING JUNE, 1956

The 216,054 cc. of poliomyelitis vaccine released to Iowa by the U.S.P.H.S. during June, 1956, was about the same as the Department of Health had been led to expect. Many areas of the state now have enough vaccine on hand so that most of their demands for first injections have been met. They are thus proceeding with second and third injections. Although a few areas appear ready, it probably will be a while yet before there is enough vaccine in the state to permit raising the eligibility age beyond 20.

List No.	Company	Amount (cc)	Amount for State Dept. of Health	Release Date	Expiration Date
31	Lilly	39,915	10%	June 6, 1956	Dec. 1956
32	Lilly	67,383	10%	June 20, 1956	Dec. 20, 1956
33	Lilly	74,547	10%	June 29, 1956	Dec. 29, 1956
	Pitman-Moore	34,209	10%	June 29, 1956	Nov. 21-Dec. 25, 1956

TUBERCULOSIS FIELD PROGRAMS

Jan. 1—May 31, 1956

TB CASES REPORTED FOR FIRST TIME

Stage	
Minimal	30
Moderately advanced	54
Far advanced	68
Unclassified, except as pulmonary	17
Not stated	2
Extra tuberculosis	8
	179
Hospitalized	
Oakdale	70
Broadlawns	7
Sunnyslope	5
Sunnycrest	3
Pine Knoll	4
River Heights	1
Veterans Administration	26
Mental Hospitals	..
University Hospitals	1
Other	7
Not hospitalized or not stated	55
	179

FILMS TAKEN

Miniature Films	12,658
14 x 17 Films	968

CASES OF PROBABLE TUBERCULOSIS

Contact Programs	222
County-wide Programs	6
Special Programs	7
	235

DIAGNOSIS CONFIRMED BY PHYSICIANS

Contact Programs	19
County-wide Programs	1
	20

SELECTED NON-TUBERCULOUS FINDINGS

Abnormal heart size or contour	91
Abnormal aorta	37
Possible neoplasm	7
Coin lesion	22
Mediastinal mass	13
Hilar node calcification	75

PHYSICIANS' REPORTS ON DISPOSITION OF SUSPECTED NEOPLASMS, MEDIASTINAL MASSES AND COIN LESIONS

Under observation	9	Refused treatment	4
Surgery pending	3	Non-Malignant	2
Inoperable	1	Negative	2

Number of Programs	Type	70 MM Films Taken	Number Referred for 14 x 17 Films	14 x 17 Films Taken	Tuberculosis Found (Probable)				Total	Number of Healthy Chests	Referred Locally for 14 x 17 Films	Non-TBC. Findings (One or More Per Person)	Number Failed
					Active	Inactive	Healed	Activity Undet.					
16	Contact	..	..	916	7	28	166	21	222	539	..	155	.
1	County-Wide	7,418	45	42	.	1	5	..	6	8	1	28	2
19	Special	4,778	..	10	.	..	5	2	7	4,622	34	105	.
		12,196	45	968	7	29	176	23	235	5,169	35	288	2

Bus Drivers X-rayed 462

WOMAN'S AUXILIARY NEWS

Mrs. E. T. Burke, *Woman's Editor*
601 S.W. 42nd St., Des Moines 12

LINES FROM THE PRESIDENT

The Second Annual Senior Student Conference, at Iowa City on May 26, proved to be a most informative and delightful affair. These programs for the advancement of medicine and public health in Iowa are sponsored jointly by the Committee on Public Relations of the Iowa State Medical Society and the College of Medicine of the State University of Iowa. Afternoon and evening programs were conducted in the Medical Ampitheatre at University Hospitals, and afterward there was a banquet and dance at the Elks Club. Senior medical students, together with their wives and fiancees, attended.

The speakers on the afternoon program gave the students practical information about the possibilities in medical practice and offered suggestions on how they might best make successful careers for themselves. Dean Norman B. Nelson and Dr. Tom McMeans, of Davenport, presented the speakers and kept the program moving and active. Dr. Lynn E. Frink, of Reinbeck, spoke on "Starting a Rural Medical Practice"; Dr. E. H. Files, of Cedar Rapids, discussed "Starting a Metropolitan Medical Practice"; Dr. J. H. Sunderbruch, of Davenport, discussed "Establishing a Group Practice"; Dr. S. P. Leinbach, of Belmond, spoke on "Advantages of Rural Practice in Iowa"; Dr. Wm. C. Eller, of Waterloo, spoke on "Medical Prepayment Insurance"; and Dr. Otto N. Glesne, of Fort Dodge, chairman of the ISMS Public Relations Committee, spoke on "Your Public Relations."

I was privileged to speak in the afternoon on "What the Auxiliary Means to Organized Medicine" and to be present at the dinner and panel discussion in the evening. To meet so many dedicated young men and their young ladies gave me confidence that the future of medical practice would be in good hands, and I profited much from the informative talks that I heard.

The audience was told: "Doctors have more bosses than anyone else. The doctor is actually an employee, and little does he know how many times he is hired and fired by his patients."

In speaking of insurance, Dr. Eller told the group, "Insurance is here to stay. In addition to the patient, insurance is our second boss, and if we aren't alert, we shall soon find we have a third boss in the form of the government. Of course if that circumstance comes to pass, government in no time at all will make itself 'boss number one.'"

The following were said to be the five most frequently voiced criticisms of our doctor husbands:

1. Failure to answer night and emergency calls.
2. Poor systems in billing patients—i.e., original statements should be itemized, for everyone likes to know what he is paying for.
3. Excessive fees—i.e., county medical societies should have standard fee schedules.
4. A tactless secretary or nurse, or a depressing looking, untidy office.
5. An inclination to rush through interviews with patients, and a hesitancy about calling consultants.

As a doctor's wife, can you help to prevent the medical profession from being thus criticized?

NATIONAL AUXILIARY CONVENTION

The Thirty-third Annual Convention of the Woman's Auxiliary to the AMA, held in Chicago June 11-15 with headquarters at the Conrad Hilton Hotel, is now a matter of record. Iowa was represented by all of its allowed delegates: Mrs. Charles Flynn, Clarinda; Mrs. Dean King, Spencer; Mrs. James Gerken, Waterloo; Mrs. M. O. Larson, Hawarden; Mrs. Elmer Larsen, Centerville; Mrs. Donovan F. Ward, Dubuque; Mrs. H. V. Kahler, Reinbeck; Mrs. C. H. Mitchell, Cincinnati; Mrs. Elmer Vorisek, Des Moines; Mrs. Lester Hegg, Rock Valley; and Mrs. R. N. Larimer, Sioux City. Other Iowa doctors' wives present were Mrs. Wendell Downing, LeMars; and Mrs. H. J. Peggs, Creston.

Mrs. Larson presented the name of our past-president Mrs. Lester Hegg for election to the nominating committee, and Mrs. Hegg was subsequently chosen.

Mrs. Charles Flynn, immediate past-president of the Iowa Auxiliary, gave a most stimulating report of Iowa's work, and beat the bell with a fine conclusion which brought the greatest round of applause given any state president.

It was a busy and informative convention. Old friendships were renewed, and new ones made. There were many exchanges of ideas, and some new, stimulating approaches to our work were outlined for us.

The fine speeches that were given, as well as the reports from state presidents and national committee members, will all be written up in your BULLETIN. That publication is a wonderful

source of ideas and materials for programs and speeches. If you do not subscribe to the BULLETIN, I suggest that you send your dollar at once to your state chairman for the BULLETIN, Mrs. Ervin Munger, 110 East Tenth, Spencer, in time to receive the reports on the Annual Convention.

Mrs. Flynn's presidential report will appear in the BULLETIN, but highlights of the convention will be covered in the individual reports of your delegates, some of which are included in this issue of the WOMAN'S AUXILIARY NEWS, and others of which will appear next month.

At the luncheon on Tuesday, the Convention was privileged to hear an address by Mr. Leonard E. Read, president of the Foundation for Economic Education, Inc. His topic, "The Positive Approach to Combatting Socialism," should be studied by all.

In discussing our present medical problems, Mr. Read pointed out that the doctors' difficulties are merely a part of a much greater problem facing our whole nation. He reminded his audience that the American people ran away from the socialistic way of living as long as 1620, long before Karl Marx developed his philosophy. When the Pilgrims' communal food supplies gave out because equal sharing hadn't been paralleled by equal providing, they decided it was time to let each have what he earned. In the following year, even the children worked in the fields, and a bumper harvest was reaped in the fall.

Why are we running back toward socialism, communism, the welfare state or whatever else you may wish to call it? (Mr. Read, like many other people, has a number of other names for those progressive ideologies.) Why are we allowing government to confiscate from some individuals so as to provide goods and services to others? Why should we allow police force to control the creative activity of man? Do we actually mean what we are saying through our actions—that *we* are better qualified to control our creative abilities than *I* am? Our government has undertaken to control our abilities, and now we are in the process of forming a governmental police force to see that this control is perfected.

We must at once begin to restore our faith in the *free* man!

What are we as individuals saying and doing about our present socialistic trend? We are saying, first, that it is a world trend and that we must let it run its course. Second, we are protesting that we, as individuals, are too busy to study all of these problems. Actually, we give this study a lower place in the list of our activities than we accord to the daily reading of the newspaper comic strips. Third, we say that there is nothing we can do as individuals. On the contrary, the individual is the only one who *can* do anything about our socialistic trends.

We must take time to understand the philosophy of socialism. We must *want to know!* We must know the sources from which understanding can be obtained. We cannot sell ideas to the man on the street unless we understand, believe and practice them ourselves. Thus, we must become well informed, and then we must prove that a free market, private property and limited government still constitute the ideal environment to live in.

Medicine, as Mr. Read said, is directly concerned with only a few aspects of a larger problem. Private enterprise must be preserved throughout our economy. Thus, we must work against the "isms" not only where they infringe upon the freedoms and privileges of doctors, but in fields where we have no interest other than in the preservation of good government.

> *And therefore never send to know for whom the bell tolls;*
> *It tolls for thee.*
>
> —*John Donne*

Self-education for each and every one of us is an absolute necessity in our present fight against socialism. Read the article by John Sparks in the READER'S DIGEST entitled "Lesson in Socialism." If you are interested in self-education, write for information to Mr. Leonard E. Read, president, Foundation for Economic Education, Inc., Irvington-on-the-Hudson, New York.

MRS. DEAN H. KING
President

CONVENTION DELEGATES' IMPRESSIONS

The 1956 Annual Convention of the Woman's Auxiliary to the AMA was my first, and I enjoyed each session. But I believe the state reports were of special interest. It was amazing to find the amounts of money raised for the American Medical Education Fund, and the interest in Future Nurses Clubs which are being organized in greater numbers each year. In all of the reports, there were accounts of increases in TODAY'S HEALTH subscription sales.

Some interesting projects described were:

A diabetic camp and the establishing of a school for the handicapped

Assistance given to needy families in preparing family air-raid shelters

Production of health skits on radio and TV, and showing of health films

A state fair exhibit (New York) at which 20-minute films were shown and literature distributed.

In vital areas, organizations are working or preparedness for defense and assisting where the need arises.

One state supports a nurse-recruitment workshop.

We were proud of our state report, so ably prepared and given by Mrs. Flynn.

I quite agreed with Mrs. Lawson, the national president, when she said, "To leave out the reports of states would be to take the backbone out of the Convention."

MRS. E. A. LARSEN

I experienced my first AMA Auxiliary convention in June, and after visiting with women from various other parts of the country, I have decided that our Auxiliary should be proud of many phases of its activities.

In his talk on legislation, Mr. C. Joseph Stetler, director of the Law Department of the AMA, said that women are more interested in legislation than are men, and if they would study the issues and work in support of Medicine's interests in that field, more would be accomplished.

At the round table on Organization, three questions were discussed: (1) how to get medical societies interested in organizing Auxiliaries; (2) how to reorganize an Auxiliary whose members have lost interest and disbanded; and (3) how to organize a new auxiliary. Our Iowa president was asked to give a résumé of the ideas that had been presented. I wish you all could have heard her.

MRS. J. F. GERKEN
President-elect

CONFERENCE ON TRAFFIC SAFETY

Dr. Lonnie A. Coffin, of Farmington, and I were extended the privilege of representing the Iowa State Medical Society and its Auxiliary at the Regional Conference of the President's Committee for Traffic Safety, held at the Sherman Hotel, Chicago, on May 23 and 24.

At the meeting, a message from President Eisenhower was broadcast in which he extended greetings to the Conference. The President said, in part, "As all of you realize, this is truly serious business. Any situation that continues to destroy life and property at such a rate as prevails on our public roads today is intolerable. Of course the really big job here is to mobilize public opinion in support of both reasonable and necessary action. Once this has been done, we can expect the kind of results the public welfare demands. I warmly congratulate you on what your previous efforts have accomplished and share your confidence that a people of our intelligence can and will stop this useless waste, if properly led to do so. I extend to you my personal thanks and best wishes and pledge to you my own full support of your objectives."

The Conference objective was "To attract, stimulate, inform and assist those persons who can most effectively create, finance and conduct state and local citizens' traffic safety organizations."

There were general sessions, group sessions and, on Thursday morning, individual state sessions to consider traffic problems, reevaluate programs and seek adequate solutions to state problems.

These are some of the conclusions at which the Conference arrived:

(1) The midwest states are not using fully the inventory service which is available to each of them without cost.

(2) More and better services to communities must be provided by (a) state governmental agencies; (b) statewide citizens' traffic and safety organizations; (c) colleges and universities.

(3) We should discover and make use of the services available in our states. For example, we should start (a) using state police to train local police officers; (b) utilizing the state bar association and attorney general's office to bring local traffic laws into conformity with the Model Traffic Ordinance; and (c) using the state highway department for assistance in local traffic engineering problems.

Our most important task, the delegates attending the Conference agreed, is the creation of a strong, effective citizens' traffic safety organization to mobilize public opinion behind constructive official programs for traffic control. In order to have an effective citizens' organization, it is essential that we have (1) effective leadership; (2) a clearly defined program based upon our own needs; (3) adequate financial support; and (4) a competent staff on the state level and in the larger communities.

The Conference session concerned with rural and small-town traffic problems came to the conclusion that there should be a citizens' traffic contral organization in every rural county, with representatives from every organization in the county, particularly from the farm organizations.

The success of the conference depends upon what the participants succeed in doing afterward, back in their home communities. The delegates from Iowa decided that on June 25 a meeting should be held of the Governor's Lay Committee to consider the formation of a state organization which would assist in the formation of state and local safety groups.

For reduction in the number and severity of traffic accidents, we need the three E's: Education, Enforcement and Engineering.

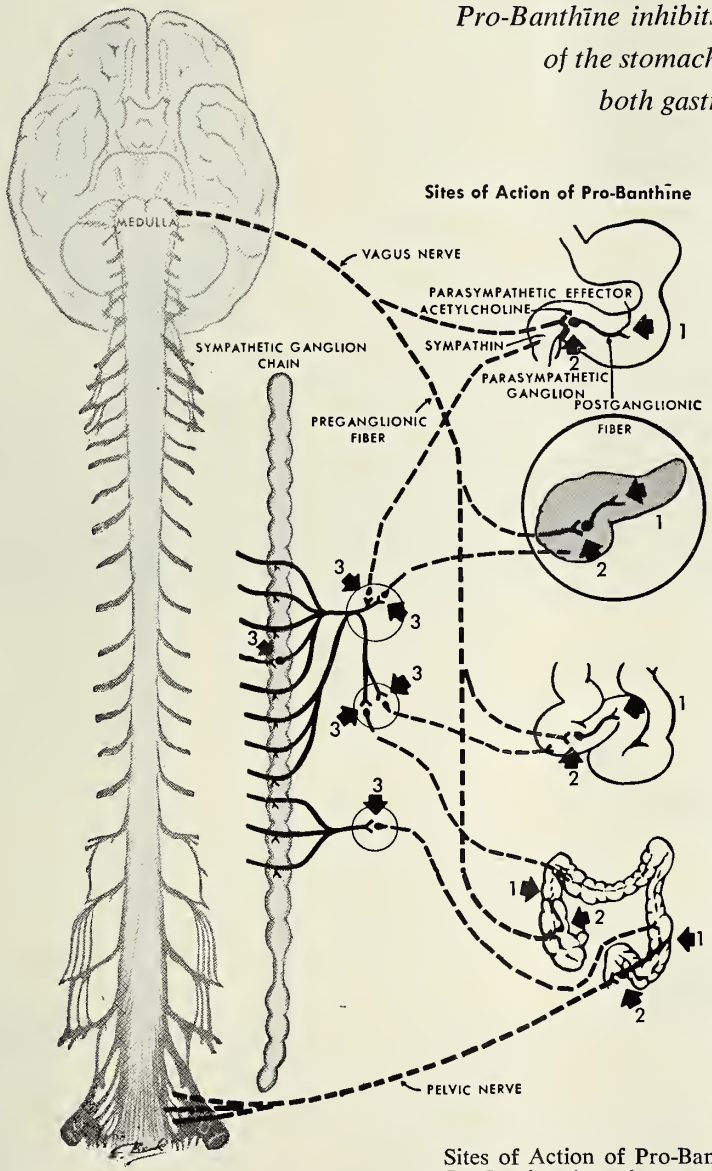
The workbooks used at the Conference are available, and there also is a film, "Alias the Killer," which local groups may borrow. Get in touch with Mr. Russell I. Brown, director of the Safety Education Division, State Department of Public Safety, State Office Building, Des Moines 19.

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1. Jones, C. A.: Arch. Int. Med. *96*:332 (Sept.) 1955.
2. Zollinger, R. M.: Postgrad. Med. *15*: 323 (April) 1954.
3. Woodward, E. R.: M. Clin. North America *38*:115 (Jan.) 1954.
4. Schwartz, I. R., and Hinton, J. W.: Personal communication, February, 1955.

Sites of Action of Pro-Banthīne. *The principal site of action of Pro-Banthīne is on the parasympathetic system where it exerts a dual action while exerting a single and lesser action on the sympathetic system: (1) parasympathetic effector; (2) parasympathetic ganglion; (3) sympathetic ganglion (see arrows).*

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The Month in Washington

Washington, D. C.—If medical research doesn't move ahead in the current fiscal year (ending June 30, 1957), it won't be the fault of Congress. The seven research organizations that make up the National Institutes of Health have far more money than they have ever had, and probably much more than their directors even dared hope for last winter at the start of hearings on their budgets. Every one of the research institutes received a substantial increase over last year, and the funds of five of them were almost doubled.

The Institutes have a total of $170.4 million to spend before next July 1. This is about 80 per cent more than they had last year. In discussing the appropriations bill on the Senate floor, Senator Lister Hill (D., Ala.) said the bulk of the money will go for grants to non-federal institutions—hospitals, medical schools, clinics and state and local organizations engaged in research.

A breakdown by disease categories shows the following picture:

For cancer research, $48.4 million, in contrast to $24.8 million for the previous year. This year's total is $16 million more than the administration asked when budget requests were sent to Congress in January.

For mental health work, $35.1 million, in contrast to last year's $18 million. This is $13.4 million more than had been requested originally.

For heart disease research, $33.3 million, compared with $18.7 million last year and $22.1 million originally requested.

For work on arthritis and metabolic diseases, $15.8 million, or $5.1 million more than last year and $2.5 million more than Congress was asked for.

For research in neurology and blindness, $18.6 million, compared with $9.8 million last year and $12.1 million originally requested.

For work on allergies and infectious diseases, $13.2 million, compared with $7.5 million last year and $9.7 million requested.

For dental research, $6 million. Although this is small compared with money voted for other U. S. research institutes, it is almost triple the $2.1 million spent last year. The huge increase is the result of a sustained campaign by the American Dental Association.

Senator Hill and Rep. John E. Fogarty (D., R. I.) led the fight in Congress for the record-breaking research appropriations. Under the latter's chairmanship, a House appropriations subcommittee boosted the total for the seven institutes to about $124 million, a figure that was accepted both by the full Appropriations Committee and by the House.

In addition to heading the Senate appropriations

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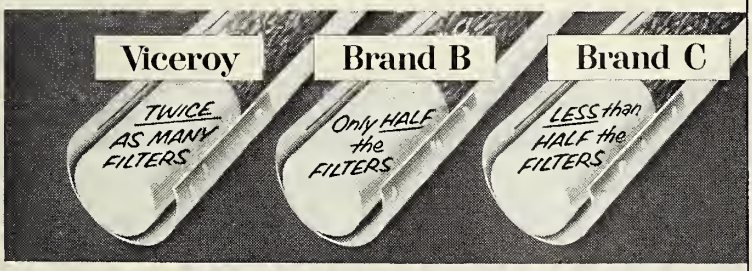


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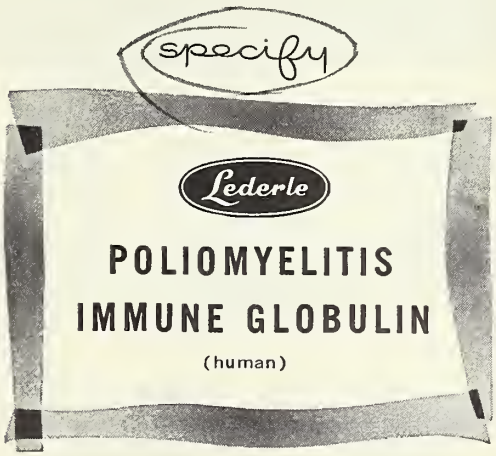
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subcommittee that handled this funds bill, Senator Hill also is chairman of the Labor and Welfare Committee and extremely active in health legislation. His subcommittee pulled up the totals to the $170 million. After the Senate-House conference committee disagreed on the spending, Rep. Fogarty carried the fight to the floor, where he persuaded the House to accept all of the higher Senate figures.

Other federal health programs, mainly concerned with disease control and hospital construction, also fared well in the Congress. The Hill-Burton program for construction grants to hospitals, has $125 million for the current year, or $14 million more than last year. For vocational rehabilitation grants, the figure is $41.5 million, a $2.7 million increase; for general public health assistance to states, it is $18.16 million, a $600,000 increase; and for Indian health work, it is $38 million, a $3.3 million increase.

NOTES

With Salk vaccine being released in ever expanding volume, the Public Health Service is urging states and communities to increase the priority age to 20 and to use up supplies as fast as received. Said Secretary Folsom: "I urge parents, physicians, and health officials to cooperate in making the maximum use of the increasing supply as soon as it becomes available . . ."

The Civil Aeronautics Administration, believing the time has come to review procedures in pilot medical examinations, has hired a private organization to conduct a thorough investigation and make recommendations. Two questions have been raised: Should lower standards be allowed for older, experienced pilots? Should crew members and ground crewmen, as well as pilots, be examined periodically?

Less than three months after his third appointment to a four-year term as Surgeon General of U. S. Public Health Service, Dr. Leonard Scheele resigned to take a post in the pharmaceutical industry so that he could "provide more properly" for his family.

Although no new legislation was enacted in civil defense, witnesses at a long series of hearings were pretty much in agreement that the job can't be done properly unless more authority is voted to the Federal Civil Defense Organization.

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1. Braceland, F.J.: Texas State J. Med. 51:287 (June) 1955.
2. Lemere, F.: Northwest Med. 54:1098 (Oct.) 1955.



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DEATHS

Dr. Frederick Clinton Armstrong, 60, who had practiced medicine at Cascade since 1945, died at the Veterans Administration Hospital in Iowa City on June 28, following a four-months illness.

Dr. Charles Edwin Porter, 78, a Life Member of the Iowa State Medical Society, died on June 18 at the hospital in Dexter, a week after suffering a coronary attack. For varying lengths of time, he had practiced in Menlo, Grand Mound, Guthrie Center and, most recently, in Redfield.

Dr. Ralph A. Anrode, 65, a Davenport ophthalmologist, died suddenly at St. Luke's Hospital there on June 29. A German by birth, he practiced in that country for 17 years before coming to the United States. He first opened an office in Davenport in 1939. Acute myocardial infarction is reported to have caused his death.

Dr. Otto Hugo Pagelson, 86, of Pharr, Texas, a Life Member of the Iowa State Medical Society, died in Des Moines on June 23, six weeks after being injured in an automobile accident in Texas. He practiced medicine at Iowa Falls for about 45 years, and since his retirement 10 years ago, had engaged in fruit farming.

Dr. Blanche W. Houser, 45, who practiced anesthesiology at Cedar Rapids, died in a hospital there on July 10, following a long illness.

SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 11:15 a.m.

"SUPERSTITION OR SCIENCE"

August 2 ..... Fertility
August 9 ..... Scurvy
August 16 ..... Ephedrine
August 23 ..... Tonics and Home Remedies

"WELL AT WORK"

August 30 ..... The Handicapped Worker

WSUI—Iowa City, Iowa
Tuesday at 11:45 a.m.

"SIXTEEN—GROWING UP"

August 7 ..... The Gang
August 14 ..... Social Responsibility
August 21 ..... Skin Problems, Cleanliness
August 28 ..... Breaking Away From Home

TELEVISION

KRNT-TV—Des Moines, Iowa
Sunday at 12:45 p.m.

"CALL THE DOCTOR"

August 5 ..... Emotional Illness
August 12 ..... Summer Colds and Hayfever
August 19 ..... Problems of Old Age
August 26 ..... High Blood Pressure

KGLO-TV—Mason City, Iowa
Monday at 2:00 p.m.

"MEDICAL DIARY"

August 6 ..... Glaucoma
August 13 ..... Auto Accidents
August 20 ..... Preceptor Program
August 27 ..... Ulcer Therapy

KCRG-TV—Cedar Rapids, Iowa
Sunday at 12:00 noon

"MEDICAL DIARY"

August 5 ..... The Heart Patient
August 12 ..... Glaucoma
August 19 ..... Auto Accidents
August 26 ..... Preceptor Program

KTIV-TV—Sioux City, Iowa
Saturday at 3:30 p.m.

"MEDICAL DIARY"

August 4 ..... Summer Allergies
August 11 ..... Tuberculosis
August 18 ..... The Heart Patient
August 25 ..... Glaucoma

KWWL-TV—Waterloo, Iowa
Tuesday at 11:00 a.m.

"YOUR HEALTH"

August 7 ..... Dentistry
August 14 What To Do in Case of an Emergency
August 21 ..... Plastic Surgery
August 28 ..... Pregnancy

The foregoing schedules are subject to change at the discretion of the station managers.

PERSONALS

Dr. William Vaughan, who finished his internship at Hurley Hospital, Flint, Michigan, joined **Dr. Harry M. Readinger** in practice at New London on August 1.

The wives of the members were guests of the Black Hawk County Medical Society at its dinner meeting on June 19 at the Elks Club, in Waterloo. The speaker was **Dr. James Reuling,** Windermere, Florida, an internist and former speaker of the House of Delegates of the AMA.

Dr. W. C. Keettel, professor of obstetrics and gynecology at the State University of Iowa, addressed a meeting of the Black Hawk County Medical Society, July 17, on "The Use of Endocrines in Obstetrics and Gynecology."

On July 1, **Dr. Arthur W. Woodward** joined **Dr. Mark A. R. Kuhn** in the practice of urology at Waterloo. Dr. Woodward is a graduate of Grinnell College and took his M.D. degree at the University of Chicago. He has completed a residency in his specialty at the University of Kansas Medical Center.

Dr. Robert B. Allen has associated himself in the practice of surgery with **Dr. E. B. Russell** in Burlington. Dr. Allen graduated from the College of Medicine at S.U.I. in 1945, interned at Hurley Hospital, Flint, Michigan, and served in the Army for all or most of two years before starting general practice at Mediapolis in 1948. Since 1952, he has been a resident in surgery at the hospital where he served his internship.

Medical Associates of Dubuque have announced that **Dr. Thomas C. Piekenbrock,** a neuropsychiatrist, has joined their group.

Dr. Jesse H. Woolfolk, II has returned to Waterloo following the completion of a three-year resi-

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INTENSIVE POSTGRADUATE COURSES

Starting Dates—Summer & Fall, 1956

SURGERY—Surgical Technic, Two Weeks, September 17, October 29
Surgical Anatomy & Clinical Surgery, Two Weeks, October 1
Surgery of Colon & Rectum, One Week, September 17
General Surgery, One Week, October 22
Thoracic Surgery, One Week, October 1
Esophageal Surgery, One Week, September 24
Breast & Thyroid Surgery, One Week, October 22
Gallbladder Surgery, 3 Days, October 29
Fractures & Traumatic Surgery, Two Weeks, October 15

GYNECOLOGY & OBSTETRICS—Obstetrics & Gynecology, Three Weeks, October 22
Office & Operative Gynecology, Two Weeks, September 17
Vaginal Approach to Pelvic Surgery, One Week, September 10

MEDICINE—Electrocardiography & Heart Disease, Two-Week Basic Course, October 8; One-Week Advanced Course, September 17
Internal Medicine, Two Weeks, September 24
Gastroscopy & Gastroenterology, Two Weeks, September 10
Gastroenterology, Two Weeks, October 22
Dermatology, Two Weeks, October 15
Cardiology (Pediatrics), Two Weeks, November 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, September 17
Clinical Uses of Radioisotopes, Two Weeks, October 8

UROLOGY—Two-Week Course, October 8
Cystoscopy, Ten Days, by appointment

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*Modell, W.: The Relief of Symptoms, Philadelphia, W. B. Saunders Company, 1955, pp. 265-266.

03156

dency in neurology and neurosurgery at the S.U.I. College of Medicine.

Dr. W. D. Perrin joined **Dr. J. E. Whitmire** in practice at Sumner after finishing his internship at Iowa Methodist Hospital, Des Moines, on July 1. Dr. Perrin had been manager of the Coca Cola bottling plant at Waterloo before undertaking medical training at S.U.I.

Dr. E. R. Stockdale began practice at Whittemore following completion of his internship at Broadlawns-Polk County Hospital, Des Moines, on July 1.

Dr. John A. Caffrey, a graduate of the Creighton University School of Medicine who interned at Mercy Hospital, Des Moines, joined **Drs. J. G. Fellows** and **L. E. Rosebrook** at Ames, on July 1.

Dr. Don Charles Weideman associated himself in practice with **Dr. John E. Blumgren** at Vinton in July, following completion of his internship at Broadlawns-Polk County Hospital, Des Moines. He is a recent graduate of the College of Medicine at S.U.I.

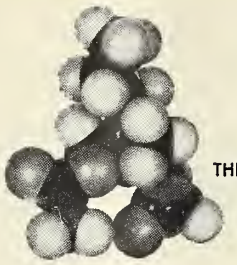
Dr. Blumgren recently completed extensive remodeling of his clinic building.

On July 1, **Dr. James W. Ryan** began practice with **Dr. Vincent H. Carstensen** at Waverly, after finishing his internship at Mercy Hospital, Des Moines.

Dr. and Mrs. Henry H. Gurau, of Des Moines, returned on July 5 from a month's tour of Europe. Dr. Gurau visited eye clinics in a number of countries and attended the Oxford Ophthalmological Congress, in England. Of their two daughters who accompanied them, one remained in Germany for a longer visit, and the other returned with her parents.

Dr. Philip M. Englund, a specialist in internal medicine, has moved from Fort Dodge to Burlington, where he is associated in practice with **Dr. Robert Todd.**

Dr. John Castell, of Fairfield, has taken his son Hugh on a two-months tour of Europe as a high-school graduation present. They left home on June 29.



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Dr. Milford D. Hayden, of Marcus, recently bought some residence property there, which he proposes to convert into a small hospital.

Mercy and St. Luke's Hospitals, in Davenport, are among the beneficiaries named in the will of the late **Dr. Ralph A. Anrode,** who practiced ophthalmology there from 1939 until his sudden death on June 29, 1956.

Gifts of more than $39,000 were accepted by the State Board of Regents recently for the financing of research at the S.U.I. College of Medicine. Largest was a grant of $20,685 from the Iowa Tuberculosis and Health Association. Of that sum, $12,500 is to be used for lung disease studies under the direction of **Dr. J. Maclean Smith,** an assistant professor of internal medicine. Among other things, he proposes to conduct investigations of staphylococcic infection in mice. From the same grant, **Dr. George N. Bedell,** also an assistant professor of internal medicine, is to have $6,285 to study the possible connection between lung disease and obesity. And $1,900 of the T-B Association's money will support the research of **Marcus Powell, M.S.,** associate professor of hygiene and preventive medicine, on the effectiveness of chlorination in killing T-B organisms in sewage.

Dr. William B. Bean, head of the Department of Internal Medicine, received $10,000 from the Nutrition Foundation, Inc. for the continuation of his work on pantothenic acid deficiency. **Dr. George R. Barnes,** assistant professor of pediatrics, received $4,028.45 from Lever Brothers Company for research in infant foods, and **Dr. John R. Carter,** professor of pathology, received $4,000 from Parke, Davis and Company for research on blood coagulation.

Dr. Norman Elmer, a recent graduate of the College of Medicine at S.U.I., who interned at St. Luke's Hospital, Cedar Rapids, will practice with **Dr. Holger M. Andersen** at Strawberry Point until he is called into military service.

Dr. William M. McCormack, a pediatrician, joined the staff of the McFarland Clinic, in Ames, on June 25. After graduating from Bowdoin College, he took his M.D. degree at the University of Rochester and served a residency in his specialty there.

Dr. D. W. Ortmeyer, who has been practicing with **Dr. John Faust,** in Manson, during the past year, has associated himself in Waterloo with

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Drs. R. W. Driver, C. P. Addison, J. R. Thomas, J. H. Jeffries and **A. M. Dolan.**

After working with **Dr. A. W. Burgess** at Iowa Falls for a number of months, **Dr. Phillip McLaughlin** has announced his intention of taking further work in surgery at the Veterans Administration Hospital in Iowa City for at least a year. Thereafter, he proposes to return to Iowa Falls.

Dr. Wallace Rindskopf, the pathologist at Broadlawns-Polk County Hospital, Des Moines, has made arrangements to take charge of laboratory work at the Evangelical Hospital in Marshalltown. He plans to spend one day a week there.

Dr. Paul M. Hoffman, a Life Member of the Iowa State Medical Society, was honored on June 24 at a dinner in the Methodist Church in Tipton. The occasion marked the fiftieth anniversary of his beginning his service to that community.

Drs. J. E. Dyson and **L. F. Hill,** Des Moines pediatricians, together with their wives, sailed for Europe on June 27 for a six-weeks vacation. They intend attending an international pediatricians' conference in Copenhagen while they are abroad.

On June 23, **Dr. Charles Ihle,** a Life Member of the Iowa State Medical Society, was honored at a dinner marking the fiftieth anniversary of his beginning medical practice in Cleghorn.

On June 7, **Dr. George W. Gearhart,** of Springville, a Life Member of the Iowa State Medical Society, was honored *in absentia* at the Chicago University Medical School. In 1899, he was a member of the school's first four-year graduating class.

In celebration of the fiftieth anniversary of his entering into medical practice, **Dr. Thomas A. McMahon,** a Life Member of the Iowa State Medical Society, was guest of honor at a dinner sponsored by the American Legion post and the Lions' Club of Garner.

Dr. John W. Vincent, of Sioux City, left on June 22 for Lansing, Michigan, where he will undertake a two-year residency in chest surgery at the Ingham Chest Hospital.

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A sharp reduction in fats in the American diet would help prevent coronary heart disease, **Dr. Ancel Keys**, professor of physiology at the University of Minnesota, told the physicians attending the Third Annual Cardiovascular Symposium sponsored by the Department of Internal Medicine of Iowa Methodist Hospital, on June 16 in Des Moines. In response to questions, Dr. Keys went on to say that whereas fat makes up 41 per cent of the average American's diet and 45 per cent of the U. S. Army diet, it should compose no more than 25 per cent. He reported that the proportion of fats that people consume has increased by one-third since 1909. During that time, he said, the consumption of butter per person has not increased, and all dairy products taken together account for no more than a quarter of the fat intake.

At the recent meeting of the AMA in Chicago, **Drs. R. T. Tidrick** and **J. A. Buckwalter, Jr.**, head and assistant professor, respectively, of surgery at S.U.I., reported that the results of their studies appear to show a marked positive correlation between diseases of certain sorts and the blood types of the patients who contract them. Their study of 10,000 Iowans showed, they said, that 20 per cent more stomach cancer and pernicious anemia patients have Type "A" blood than any other type; and 35 per cent more peptic ulcer patients have Type "C" than any other type.

Dr. Robert Linthancum began practice with **Dr. C. R. Roberts** at Dysart on June 15, following completion of his residency in radiology at the Veterans Administration Hospital in Iowa City.

At State Center, **Dr. B. M. Biersborn** has announced that he is dissolving his partnership with **Dr. C. R. Sokol** and will leave his practice for six months. When he returns, he intends to undertake caring for somewhat fewer patients than formerly. **Dr. R. G. Robinson**, of State Center, will replace Dr. Biersborn as Dr. Sokol's partner.

During the illness of **Dr. T. L. Ward**, of Arnolds Park, **Drs. Ruth Wolcott**, of Spirit Lake, and **R. J. Coble**, of Lake Park, undertook between them to keep his office open during the regular hours each week and to care for his patients.

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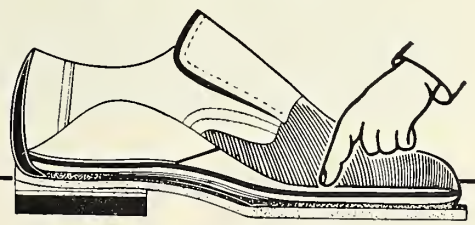
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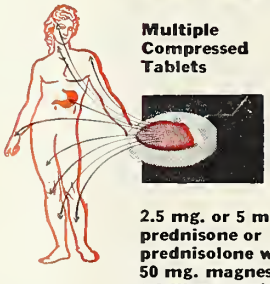
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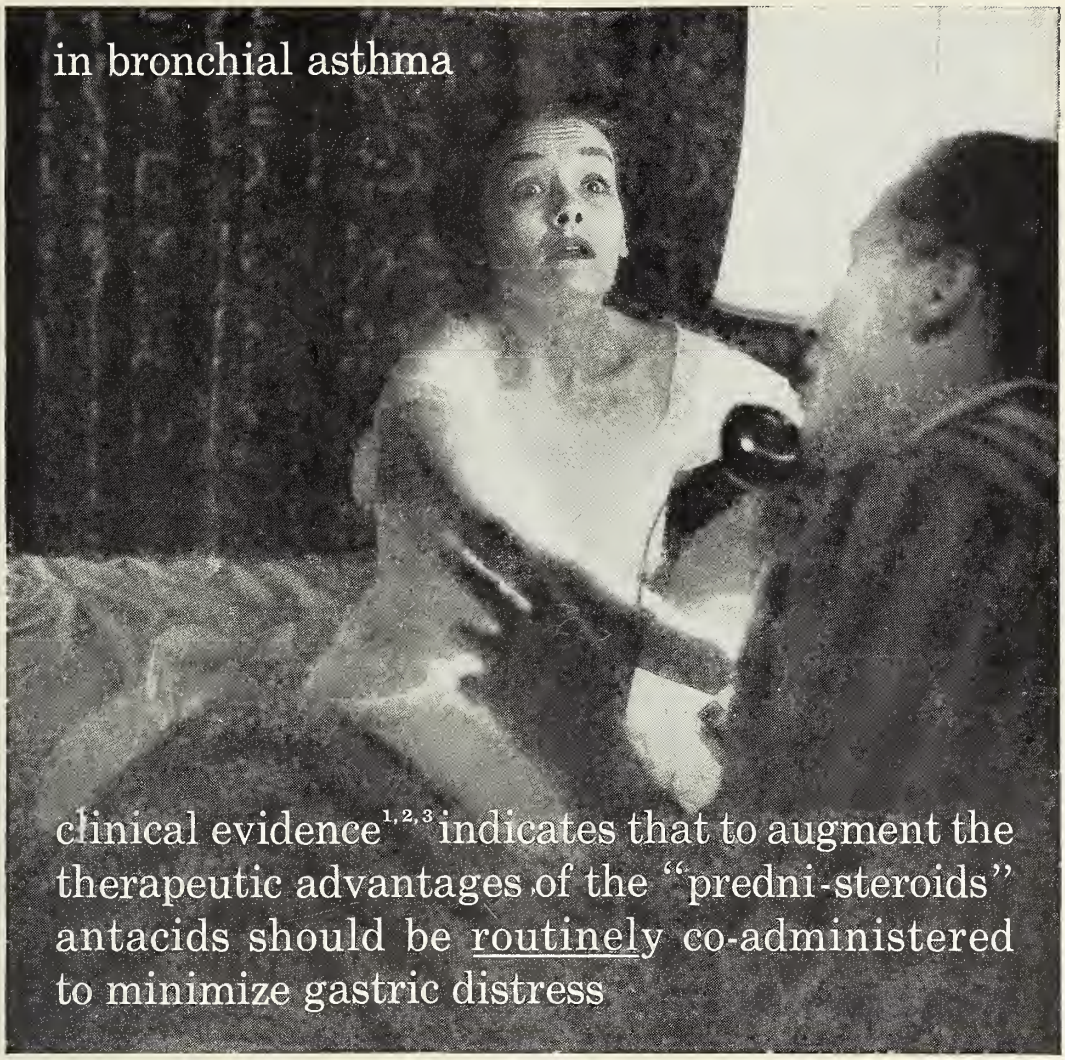
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References: 1. Boland, E. W., *J.A.M.A.* 160:613, (February 25,) 1956. 2. Margolis, H. M. *et al*, *J.A.M.A.* 158:454, (June 11,) 1955. 3. Bollet, A. J. *et al*, *J.A.M.A.* 158:459, (June 11,) 1955.

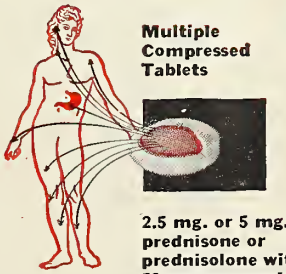
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Ground-breaking ceremonies were held in Mason City on June 13 for the construction of the new Park Hospital Clinic. Remodeling the old structure and building additions to it are planned to cost $600,000. **Dr. C. F. Starr,** a Life Member of the Iowa State Medical Society and an original staff member of the Clinic, turned the first shovelful of dirt.

Dr. A. F. O'Donoghue, a Sioux City orthopedic surgeon, was guest speaker at the annual meeting of the Pocohontas County Medical Society, held at West Okoboji a few weeks ago. The scientific meeting was followed by a fish fry, at which **Dr. O. L. Babcock,** of Albert City, acted as host.

The choice of **Dr. Harold E. Sauer** as one of the candidates for coroner of Marshall County was the subject for some argument following the primary election in June. Local leaders, not of Dr. Sauer's party but of the opposing one—demanded an investigation on the grounds that his name had been listed on voting machines in at least three precincts without his having formally declared his candidacy. County central committeemen of the doctor's own party declared themselves satisfied, however, and he had received enough votes to entitle him to a place on the ticket in November.

An office building is being built for **Dr. Richard W. Hill,** of Lake Mills, to be ready for occupancy late this summer.

Dr. Abraham Gelperin, Des Moines-Polk County public health director, is quoted by a Des Moines REGISTER staff writer as having declared that if the supply of Salk vaccine is as large as it appears to be, it should be made available to adults immediately. "If health officials and physicians," he is reported to have said, "are foolish enough to wait until everyone under the age of 21 receives vaccine, our grandchildren will die of old age before adults can get it."

At Marengo, **Dr. Burns Byram** announced that he and the other M.D.'s there would start using the vaccine for inoculating all adults who asked for it, and it appears that there are other communities in the state where the doctors are taking a similar stand.

Dr. Don C. Green, a Des Moines general practitioner who was unopposed for the office of Polk County coroner in the primary election, has been named by the Board of Supervisors to the position of deputy, to serve until the expiration of **Dr. Walter Anderson**'s term as coroner. Dr. Anderson,



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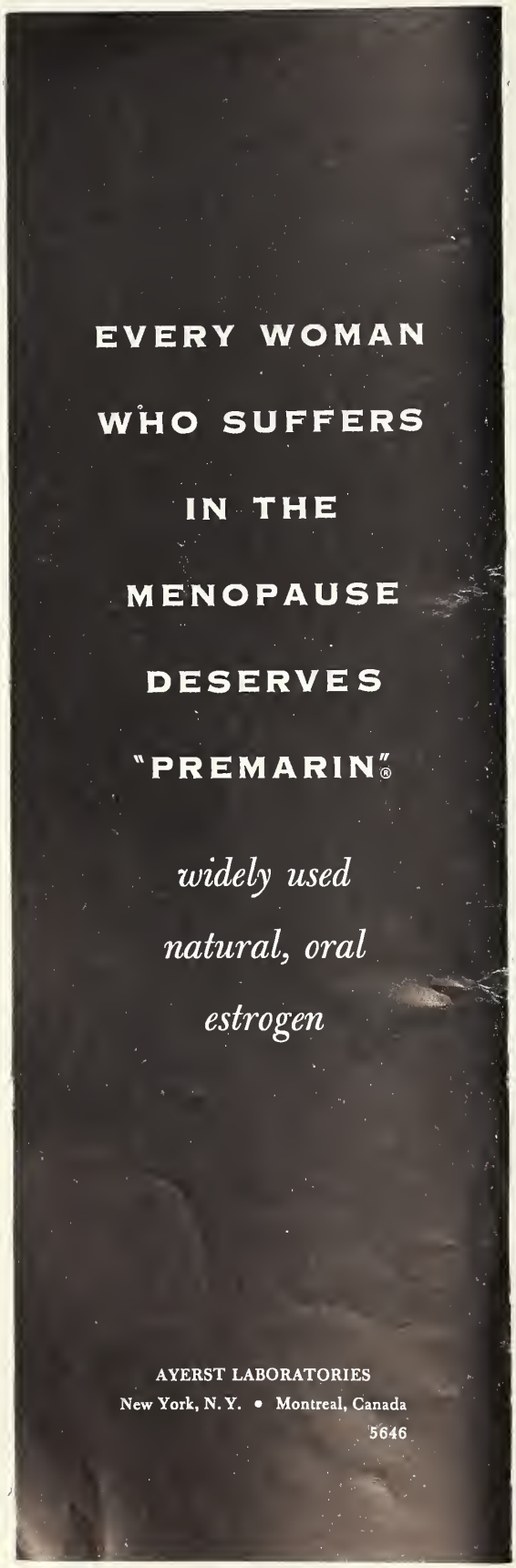
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who is now a resident in pathology at Iowa Methodist Hospital, did not seek reelection.

Dr. John F. Veltman, of Winterset, closed his practice there on July 13. After taking a postgraduate short course in Chicago, he intends practicing anesthesiology at Rowan Memorial Hospital, in Salisbury, North Carolina.

Governor Leo A. Hoeg recently reappointed **Dr. Frank R. Peterson**, of Cedar Rapids, to the State Board of Medical Examiners.

Dr. Eugene E. Lister was chosen president of the Dallas Center Commercial Club on June 25.

Dr. Paul E. Huston, head of the Department of Psychiatry at the S.U.I. College of Medicine, was appointed to succeed **Dr. Wilbur R. Miller** as director of the State Psychopathic Hospital on July 1. He holds a Ph.D. degree in psychology in addition to his M.D. degree, and is chairman of the American Psychiatric Association's Committee on Relations with Psychology. He has been a member of the University faculty since 1940.

Dr. Don H. Newland, of Belle Plaine, was hospitalized following a heart attack on June 14.

Dr. Carl V. Griesy, a 1955 graduate of the S.U.I. College of Medicine who interned at Broadlawns-Polk County Hospital, in Des Moines, has associated himself with **Dr. W. E. Walsh** in the practice of medicine at West Union.

Dr. Robert Dawson opened an office at Graettinger on July 2. A 1955 graduate of the College of Medicine at S.U.I., he interned at Broadlawns-Polk County Hospital, Des Moines.

The association of **Dr. James C. Donahue** with **Drs. A. B. Kuhl** and **A. B. Kuhl, Jr.**, of Davenport, was announced on July 10. Dr. Donahue recently completed a four-year residency in surgery at Iowa Methodist Hospital, in Des Moines.

Dr. Robert M. Powell, a psychiatrist and neurologist, has begun practice in Mason City. He received his M.D. and his specialty training at S.U.I., and for the past two years has been in Army service at Fort Hood, Texas. For the present, he is confining his practice to outpatients, but sometime

this month, when the new 14-bed wing of Mercy Hospital, Mason City, has been completed, he will practice there, as well.

Dr. Vincent J. Vaugn, a specialist in anesthesiology, has joined **Dr. Paul I. Ekart** in practice at Ottumwa. Dr. Vaugn came there from Axtell, Kansas.

Three physicians who have served Washington, Iowa, for a total of 168 years will be honored on August 2 at a program to be held at the Country Club there. **Dr. C. W. McLaughlin** has been practicing for 60 years; **Dr. C. A. Boice** 56 years; and **Dr. W. S. Kyle** 52 years. All three are Life Members of the Iowa State Medical Society. There is to be an open house in the afternoon under the sponsorship of the town's Chamber of Commerce, and an evening program sponsored by the County Medical Society.

At an organizational meeting in Des Moines on July 10, **Dr. Franklin H. Top,** head of the Department of Hygiene and Preventive Medicine at the S.U.I. College of Medicine, was reelected president of the Iowa State Board of Health, and **Dr. Charlotte Fisk,** a Des Moines pediatrician, was reelected secretary.

The Board took cognizance of the danger to infants from nitrates in drinking water supplies, and recommended that private laboratories that make water analyses should look for nitrates as well as for bacteria.

Dr. Dale R. Onnen, a graduate of the College of Medicine at S.U.I. who recently finished his internship at Memorial Hospital, Rockford, Illinois, has joined **Drs. R. F. Frech** and **John Singer** in practice at Newton.

Following completion of their residencies at Iowa Methodist Hospital, in Des Moines on July 1, **Dr. Walter Dennert** associated himself with **Dr. B. T. Whitaker,** at Boone, and will do radiology at the Boone County Hospital, and **Dr. George Caudill** joined **Dr. Everett Nitzke** in the practice of pediatrics in Des Moines.

Dr. Robert C. Hardin, professor of internal medicine at S.U.I., delivered a paper on "The Relative Importance of Duration and Control in the Development of Diabetic Retinopathy" on June 10 at the meeting of the American Diabetic Association, in Chicago.

On May 26, **Dr. William B. Bean,** head of the Department of Internal Medicine at S.U.I., delivered the Phi Beta Kappa initiation address in Iowa City, and on May 31, he gave the A.O.A. initiation lecture there. On June 8, he addressed the American College of Chest Physicians, in Chicago, on "Heart Failure."

The Medical Division of the Mercy Hospital (Des Moines) Building Fund Campaign, captained by **Drs. Walter D. Abbott** and **Bernard Barnes,** increased pledges to a total of $354,406.50 at the final report meeting. Their quota had been $300,000. Including the federal grant of $917,000, the grand total now subscribed and otherwise available for the project is unofficially reported to be in excess of $3,250,000, whereas the total campaign goal had been $2,842,000.

A medical clinic adequate for six doctors is being planned by the **Drs. Richmond (Frank R., Sr., Frank R., Jr.,** and **Arthur C.),** of Fort Madison. A start has been made at razing the buildings which the new structure is to replace.

Dr. Claude H. Koons opened a practice in obstetrics and gynecology in the Savings & Loan Building, in Des Moines on July 1.

Dr. Daniel J. Glomset, of Santa Barbara, California, a Life Member of the Iowa State Medical Society, was hospitalized there after suffering a coronary attack. At latest report, he expected to be discharged almost immediately.





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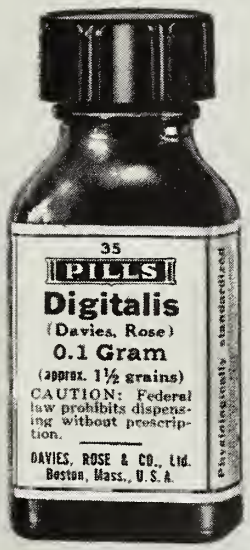
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Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego, Calif.) .....Lt.(j.g.), U.S.N.R.
Day, R. T., Hampton
(18th THC Hospital, APO 123, New York)
.....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Dieckman, M. R., Grundy Center
(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Gleeson, J. J., Vail
(Fargo, North Dakota) .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Goplerud, C. P., Iowa City
(U.S.A.H., Albuquerque, New Mexico) .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
.....Capt., A.U.S.
Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Hastings, R. A., Ottumwa
(U.S. Naval Hosp., Pensacola, Florida) .. Lt., U.S.N.
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Hodges, R. E., Iowa City
(Silver Spring, Maryland) .....Capt., A.U.S.
Hogenson, G. B., Eagle Grove
(Navy Center, Omaha, Nebr.) .....U.S.N.
Howe, G. W., Iowa City
(Grosse Isle, Michigan) .....N.A.S.
Johnston, T. L., Iowa City
(Qtrs. 12, Warren AFB, Cheyenne, Wyo.) .....
Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Koptik, George, Jr., Garwin
(Camp Lucas, Sault Ste. Marie, Mich.) .....
Lake, Carlton B., Sumner
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Larson, Gerald E., Elk Horn
(A.P.O. 856, New York, N. Y.) .....Capt., U.S.A.F.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.
McCoy, John T., Cedar Falls
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(66 N. Oak St., Trfwy, Kansas City, Mo.) Lt., U.S.N.
Olson, Stewart O., Des Moines
(Seattle, Washington) .....Lt., U.S.N.
Powell, Robt. M., Iowa City
(U.S.A. Hosp., Ft. Hood, Texas) .....Capt., A.U.S.
Rodgers, G. H., Mt. Ayr
(Brooke Army Hosp., Ft. Sam Houston, Texas)
.....Lt. A.U.S.
Rogers, Edward A., Anamosa
(U.S.P.H.S. Hospital, Seattle) .....
Sacco, Severino O., Iowa City
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Severson, Wayne L., Slater
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Slate, W. G., Iowa City
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Swanson, Eric M., Iowa City
(Omaha, Nebraska) .....
Thomas, Gary L., Des Moines
(Randolph A.F.B., Texas) .....U.S.A.F.
Thompson, J. W., Ames
(Camp Breckinridge, Kentucky) .....Capt., A.U.S.
Trosman, Harry, Iowa City
(Camp Pendleton, California) .....U.S.N.R.
Turner, R. M., Armstrong
(11th Field Hosp., APO 178, New York City)
.....Capt., A.U.S
Winter, F. D., Burlington
(Elmendorf A.F.B., Anchorage, Alaska) ...U.S.A.F.
Workman, R. D., Ruthven
(Deep Sea Divers, Naval Gun Factory, Washington, D. C.) .....Lt., U.S.N.

INTERNATIONAL COLLEGE OF SURGEONS

The twenty-first Annual Congress of the U. S. & Canadian sections of the International College of Surgeons will be held at the Palmer House, in Chicago, September 9-13, 1956. The opening day, Sunday, will be devoted to business sessions. General assemblies will be held mornings and afternoons, Monday through Thursday. Section meetings at the same hours will cover coloproctologic surgery, neurosurgery, obstetrics and gynecologic surgery, occupational surgery, ophthalmology and otorhinolaryngology, orthopedic surgery, plastic surgery, rehabilitation services, surgical nursing and urologic surgery. A film forum will be presented on Monday evening, and all-day scientific motion picture programs will be given Monday through Thursday. A special post-assembly clinical day, open to all physicians, will be held in the Cook County Hospital on Friday.

Further information may be secured from the International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

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References: (1) Felix, N. S.: *Pediat. Clin. North America* 3:317, 1956. (2) Joron, G. E.; Fowler, A. F.; de Vries, J.; Reid, G., & Mathews, W. H.: *Canad. M. A. J.* 73:956, 1955. (3) Weil, A. J., & Stempel, B.: *Antibiotic Med.* 1:319, 1955. (4) Perry, R. E., Jr.: *North Carolina M. J.* 16:567, 1955. (5) Jones, C. P.; Carter, B.; Thomas, W. L., & Creadick, R. N.: *Obst. & Gynec.* 5:365, 1955. (6) Murphy, F. D., & Waisbren, B. A., in Murphy, F. D.: Medical Emergencies: Diagnosis and Treatment, ed. 5, Philadelphia, F. A. Davis Company, 1955, p. 557. (7) Altemeier, W. A.; Culbertson, W. R.; Sherman, R.; Cole, W.; Elstun, W., & Fultz, C. T.: *J.A.M.A.* 157:305, 1955. (8) Horton, B. F., & Knight, V.: *J. Tennessee M. A.* 48:367, 1955.

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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI SEPTEMBER, 1956 No. 9

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Scientific Articles

Diagnosis of Fever of Obscure Origin

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FEVER IS A SYMPTOM, known since the time of Hippocrates, which has always been considered important in diagnosis, prognosis and treatment. For years, concepts of fever were limited to thoughts of infection and sepsis, but as knowledge of medicine has increased, we have come to recognize that fever can be a symptom of disease that apparently is unassociated with infection.

The search for the cause of a fever is a fascinating one which frequently necessitates our delving deeply into accumulated knowledge, and only too often leads us through channels that have no satisfactory termination. Many fevers of short duration can quickly and generally be categorized as belonging to locally prevalent epidemics and then dismissed as being relatively unimportant, but when the fever is of an unusual type or when it persists as a prominent symptom, it becomes a specific problem in itself.

Body temperature is controlled by a central heat regulator which is thought to be located in the hypothalamus and by a peripheral mechanism. A variety of factors may affect either one or the other of these controls. Fever may have a physiologic basis such as exercise or menstruation, or it may result from psychogenic stimulation. It most often, however, is the result of infection, which may be septic or nonseptic, localized or systemic, and indigenous to one geographic region or to another. Non-infectious fevers are common, and they occur chiefly in association with malignant tumors, blood dyscrasias, collagen diseases and drug sensitivities. In malignant tumors and collagen diseases, the pathologic processes tend to be widespread. In these conditions the diagnosis is frequently missed because the clinician concentrates upon one or two presenting symptoms and fails to view the picture as a whole.

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THE KEYSTONE OF DIAGNOSIS

The History. In any investigation of the cause of fever, the history is of utmost importance. One must seek for a story of exposure to the disease if he is to be justified in suspecting such infections as brucellosis and tularemia. Brucellosis, for example, usually occurs in those individuals who have contact with infected animals or who ingest unpasteurized milk, and it is rarely seen in those who have had no opportunity for such contact. The history of an infection is equally important, and the story of a carbuncle or a boil occurring some weeks before the onset of febrile illness should suggest the possibility of a perinephritic or a renal cortical abscess, for these conditions usually are preceded by this type of infection. Likewise, when fever occurs in association with a history of rheumatic heart disease, the diagnosis of subacute bacterial endocarditis should be suspected. In lupus erythematosus, the discovery that an arthritis or an arthralgia occurred many months previously may furnish the principal clue to the correct diagnosis. Consideration of drug sensitivity as a cause for fever is of course dependent upon one's finding a history of the use of a possibly offending drug. Ordinarily, these pertinent historical facts will not be elicited unless specific inquiry is made concerning them, for the patient will not have attached any significance to the pertinent incident and will have forgotten to mention it.

The history of the present illness and the degree and duration of the fever are also important, for treatment which has been carried out prior to the time the patient is seen may alter the presenting picture.

Physical Examination. A careful physical examination is no less valuable than a good history. It should consist of an exacting scrutiny of the skin, mucous membranes and sclerae. The presence of a rash may suggest exanthematous disease, lupus

erythematosus or drug sensitivity. Lesions produced by scratching caused by pruritus are frequently found in association with lymphoma and leukemia. Petechiae of the fingers or sclerae should suggest the possibility of bacterial endocarditis or blood dyscrasia. Jaundice may be indicative of disease within the liver or biliary tract, or may suggest some hemolytic blood process. Enlargement of lymph nodes will be encountered rather commonly in the presence of lymphoblastoma, metastatic malignant lesions, tuberculosis, leukemia, infectious mononucleosis and lupus erythematosus. Even though roentgenograms show nothing of significance, examination of the chest may reveal an absence of breath sounds, suggesting bronchial stenosis, or perhaps pneumonitis or pleural effusion. An increase in the intensity of a previously known heart murmur should direct attention to the possibility of bacterial endocarditis. Abdominal and pelvic masses may be found in association with malignant lesions involving retroperitoneal lymph nodes or a viscus. Hepatomegaly of a nodular nature should suggest a malignant lesion, and if associated with tenderness it may be indicative of hepatitis or of an abscess. Splenomegaly is commonly found in association with blood dyscrasias, brucellosis, malaria, bacterial endocarditis, typhoid fever and lymphoma. Idiopathic thrombophlebitis is frequently associated with malignant neoplasm of the pancreas or liver. A rectal examination may reveal a malignant lesion or calculi of the prostate, tender seminal vesicles or malignant metastatic involvement of the rectal shelf.

Further Measures. The history and the physical examination constitute the keystone of our attempt at solving the problem of fever, for on these procedures hinge our subsequent reasoning and our employment of laboratory measures. If our thinking is sufficiently sound, we pursue correct paths of investigation and persist in suitable attempts at solving the problem. In any event, laboratory investigation should start with a routine urinalysis (including microscopic study), determinations of the values for hemoglobin, erythrocytes and leukocytes, sedimentation rate of erythrocytes, and roentgenograms of the chest. Special studies of the blood, including blood cultures, should be done as indicated, as should other special examinations.

The cause of fever may lie in any system in the body, and detailed descriptions of the multiplicity of tests that might be employed in such an investigation are of course beyond the scope of this paper. Nevertheless, one can profit from a review of some of the common entities to be encountered in the fields of infections, neoplasms and other conditions which account for the majority of obscure fevers. A continuing awareness of the existence of all these diseases will often lead one to the making of a correct diagnosis.

Before taking up some of the cases that illustrate these points, I should like to point out that in some instances in which my colleagues and I have arrived at a correct diagnosis, we have benefited from the fact that some time had elapsed between the onset of illness and our first seeing the patient. On many occasions, this delay has served to eliminate what might otherwise have been obscure features of the disease and to permit clarifying signs and symptoms to make themselves apparent.

COMMON ENTITIES RESPONSIBLE FOR FEVERS

Brucellosis. This disease may be mentioned first as a cause of fever because of the prominence it received a few years ago. The condition is diagnosed much less frequently now, probably because the criteria for diagnosis have been made more exact than they once were, and because the disease is being stamped out in animals. Little reliance is now placed upon the skin test, and if the blood titer is to be considered significant, it must usually be 1:160 or higher, or it must increase under observation. The diagnosis can be made with certainty only if a positive culture of the organism is obtained from the blood or from a focus of infection. In brucellosis, as a rule, the sedimentation rate of erythrocytes does not rise so much in proportion to the fever as the evidence of infection might have led one to expect. In the presence of a fever, therefore, a low sedimentation rate should always make one suspect brucellosis.

Disorders of the Urinary Tract. Infections of the urinary tract always should be considered as potential sources of fever. Localization of infection due to the tubercle bacillus and other organisms may produce lesions ranging from prostatitis to pyelonephritis and perinephritic abscess. In perinephritic abscess, definite localizing signs may be long delayed. They finally appear as tenderness in the flank, displacement of the kidney or obliteration, in the roentgenogram, of the margin of the shadow cast by the psoas muscle. An interesting example of this condition is afforded by the following case.

The patient, a 23-year-old woman, entered the Mayo Clinic with a complaint of chills and fever of nine months' duration. She had first noticed these symptoms in association with left lumbar distress during pregnancy. At that time, the diagnosis of pyelitis had been made, and she had received temporary relief on a number of occasions following catheterization of the left kidney. She continued to have fever and chills, however, and the many tests which she underwent subsequently produced uniformly negative results. The diagnosis of renal tumor or tuberculosis of the kidney had been considered, but never substantiated.

On admission to the Clinic, she had a fever of 101°F., and by that time, a palpable, movable, firm and non-tender mass had appeared in the right flank. The patient was anemic and had lost 20 pounds. Urinalysis gave negative results, and

leukocytes numbered 4,700 per cubic millimeter of blood. Excretory urograms showed a T-shaped upper calyx, and large and elongated minor calices of the left kidney, with wide diversion suggesting pressure on the upper pole of the kidney. One branch of the superior calyx was flattened and hook-shaped, suggesting intrarenal pressure.

At operation, an encapsulated perinephritic abscess of the upper pole of the left kidney containing 800 cc. of foul, thin pus was found. The lower two-thirds of the kidney appeared normal. Recovery followed drainage of this abscess.

In most instances of perinephritic abscess, one doesn't see the early suggestions of renal difficulty which were present in this case. But in spite of them, the diagnosis continued to be masked for many months.

Another not infrequent cause of fever from the urinary tract, and one which is easily overlooked, is illustrated by the following case. The patient, a man, gave a history of having had prostatitis, with a fever to 105°F., four years before he came to the Clinic. In the interim, he had had bouts of fever, and these frequently had occurred in association with a rash. He had had no urinary symptoms, with the exception of occasional mild dysuria. In the two years prior to his admission to the Clinic, he had had treatment in the form of prostatic massage at irregular intervals. Urinalysis revealed pus, Grade 3 (on an arbitrary grading range of 1 to 4). Roentgenograms of the urinary tract showed evidence of prostatic calculi. Cystoscopic examination revealed that a chronic abscess in the midportion of the prostate gland was draining into the urethra through two dilated ducts. Minute calculi—30 of them—were evacuated from the prostatic ducts, and the patient was relieved of his symptoms.

Prostatic calculi may cause fever, and this patient's experience shows that one can quite readily overlook that fact.

Still another cause of fever arising from the urinary tract is illustrated by the following case. The patient, a man, had first noticed fever, fatigue and loss of weight two years before he came to the Clinic. On one occasion early in his illness, he had been thought to have polycystic kidneys, but this diagnosis was subsequently discarded. Also, on the basis of a positive agglutination test for brucellosis, he had been treated in vain for that disease. A number of diagnostic tests were done afterward, but all proved to be negative.

On his admission to the Clinic, his temperature was 100°F., and he appeared rather ill. A freely movable mass was found in the left flank. Urinalysis revealed leukocytes and a few erythrocytes. Excretory urograms revealed a left renal tumor which was thought to be a hypernephroma, or possibly a carbuncle. At operation, an adenocarcinoma of a hypernephroma type was found, and nephrectomy was done. The tumor had invaded the renal capsule, but had not yet extended into the renal pelvis or renal vein. When last heard from, four years following the operation, the patient had continued to be well.

Israel,[1] in 1896, was probably the first to mention renal neoplasm as a cause of fever, and many others have since described this interrelationship. The foregoing case, which was undiagnosed for two years, was reported by Hempstead and Priestley,[2] in 1952, and at that time they expressed the now well recognized opinion that no obscure fever can be thought to have been thoroughly investigated until careful examination has eliminated hypernephroma as a possible cause.

Subacute Bacterial Endocarditis. When a heart murmur and a fever occur together, one must always think of this disease. Other suggestive findings are splenomegaly, microscopic hematuria, embolic phenomena and evidence of cardiac failure. The diagnosis, even when strongly suspected, is sometimes made only with difficulty, for repeated blood cultures may be negative, as is illustrated in the next case.

The patient, a farmer, stated that he had first noticed fever in association with fatigue four months prior to his admission to the Clinic. At the onset of his illness, he experienced one brief spell of unconsciousness. Shortly thereafter, he was placed in a hospital because of edema and pulmonary congestion. He had moderately loud systolic and diastolic murmurs, heard with greatest intensity in the aortic region and transmitted to the carotid vessels. His spleen was not palpable, and he had no petechiae. Urinalysis was negative. He was anemic and had leukocytosis to 16,700. The sedimentation rate of erythrocytes, by the Westergren method, was 65 mm. in one hour. Roentgenograms of the thorax indicated cardiac enlargement and pulmonary congestion. Because of the deep suspicion that the condition was one of subacute bacterial endocarditis, a total of six blood cultures were taken, but all proved negative. Under these circumstances, other diagnoses such as lupus erythematosus and periarteritis nodosa were considered, but they were unsubstantiated. A brief trial of antibiotic therapy was given without benefit. The patient became progressively worse, and died 17 days after entering the hospital.

A clinical diagnosis had never been made, but subsequent examination revealed vegetative and ulcerating aortic endocarditis, with insufficiency, and gram stain demonstrated bacteria in the vegetations.

Failure to make a diagnosis usually can be attributed to errors resulting from incorrect thinking on the part of the clinicians, but at times, as this case illustrates, the fault can't be attributed to that cause.

Amebiasis. This disease is not infrequently seen at the Mayo Clinic, and often is a cause of fever for which the diagnosis has not been established previously, in spite of many months of illness.

Amebiasis may produce suppuration in the liver, or—less frequently—it may give rise to recurring episodes of fever and chills without localizing signs. It may be suspected when in addition to fever the patient gives a history of exposure to the disease and of diarrhea, and when leukocytosis and tenderness in the region of the liver are found. However, this condition should always be suspected when one is dealing with fever of unknown origin, and my colleagues and I have encountered it in a patient from a neighboring state who never before had been outside of that state. The diagnosis is made by the positive identification of Entamoeba histolytica in the stools, or in ulcers found on proctoscopic examination. The response of the disease to treatment with emetine hydrochloride is dramatic, as Figure 1 shows. This chart depicts the temperature course of a patient who had been ill with chills and fever for three or four months before coming to the Clinic. Although no localizing features of amebiasis were present, he gave a definite history of exposure to it, and Entamoeba histolytica was found in the stools.

Circumstances will occasionally arise in which a therapeutic trial of emetine is justified in the absence of a positive diagnosis. When a satisfactory result is obtained in such instances, the physician will always regret not having made a positive diagnosis, although his dissatisfaction will be tempered by his gratification over the benefit that the treatment has provided to the patient. The following case will serve as an example.

On admission to the Clinic, a man who had lived in the South in recent years complained of chills and fever of five months' duration. At onset of his illness, he had had diarrhea for a few days. Examination revealed old, rheumatic aortic and mitral endocarditis which made the physician suspect subacute bacterial endocarditis. But further examination revealed no evidence of splenomegaly or petechiae, and urinalysis gave negative results. No enlargement of the liver or lymph nodes was noted. Roentgenograms of the chest and routine studies of the blood were negative. Because bacterial endocarditis was suspected, seven blood cultures were taken, but all proved to be negative. Search was negative for malarial parasites in the blood and for parasites and ova in the stools. The patient refused proctoscopic examination because the procedure had once caused him pain following rectal surgery. An L.E. clot test was negative. Excretory urograms demonstrated normal kidneys. A bromsulfalein test showed a 6 per cent retention of dye. Examination of the sternal marrow revealed a widespread lesion of non-specific character resembling a granuloma.

In the final analysis, it seemed that we had about run the gamut of indicated diagnostic procedures, and we were left with suspicions of various lesions, including lymphoma, with involvement of retroperitoneal lymph nodes. The diagnosis of bacterial endocarditis seemed unlikely, in view of the negative blood cultures, but it had not been eliminated, and we reached the point of considering either giving a therapeutic trial of roentgen therapy over the lower part of the abdomen, or exploring the abdomen for lymphoma. The latter procedure is the preferable one, but first, on the basis of previous experience, it seemed worth while to give a therapeutic trial of emetine hydrochloride empirically, for in any event, it could do the patient no harm. Two days after this treatment was started, his temperature returned to normal, and two months later, when he was last heard from, it had stayed there and he had continued to feel well.

It is of interest that the temperature chart of this patient (Figure 2) bears a remarkable similarity to that of a patient previously mentioned—the one whose temperature chart is reproduced as Figure 1. That man's illness was positively diagnosed as amebiasis.

It was disappointing not to establish a definite diagnosis in the last-reported case, but the response to treatment was nevertheless gratifying.

Lymphoma. Mention of lymphoma in the differential diagnosis in the last case brings to mind some of the problems one occasionally encounters in establishing this diagnosis. In the following case, we failed to make a diagnosis.

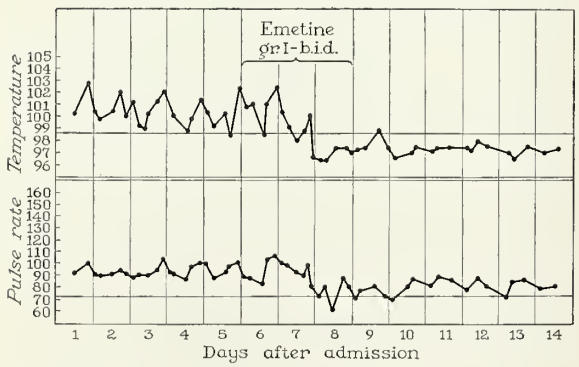


Figure 1. Response of amebiasis to treatment with emetine.

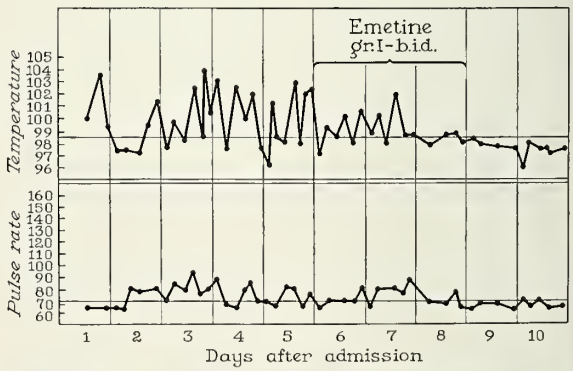


Figure 2. Response of disease simulating amebiasis to treatment with emetine.

A farmer entered the Clinic because of dyspnea on exertion, belching and occasional vomiting. He reported having had some fever for a week preceding his admission. He had known of a heart murmur for some years, and three days before we saw him, he had complained of rapid, irregular heart action for a couple of hours.

On examination, the liver was found to be slightly enlarged, the spleen was just palpable, and an enlarged lymph node was palpated in the right axilla. A systolic murmur of moderate intensity was heard at the apical region of the heart. The hemoglobin, the erythrocyte and leukocyte counts, and the urine were normal. Roentgenograms of the chest were negative. The sedimentation rate of erythrocytes was 91 mm. in one hour, according to the Westergren method. The differential diagnosis was chiefly concerned with bacterial endocarditis, brucellosis and lymphoma. The patient had fever of around 100°F. for the first three days of his stay in the hospital, but thereafter his temperature was normal for seven days, until he was dismissed. Results of many special studies, such as blood smears, blood cultures, blood agglutination studies and electrocardiograms, were normal. Examination of the sternal marrow was negative.

When this patient returned one month later, he seemed to be doing fairly well, although his temperature was 100.2°F., and the sedimentation rate was 74 mm. in one hour (Westergren). He returned, again after an absence of one month. Then, his temperature was 102°F., and he appeared to be seriously ill. At home, he had had treatment with antibiotics for two weeks, with return of temperature to normal for three or four days and disappearance of the palpable spleen. These responses to treatment were of course thought to be suggestive of those which might occur if he were recovering from bacterial endocarditis. On this visit, a biopsy of the enlarged axillary node revealed only inflammatory changes. Results of further blood cultures and of other tests, including excretory urograms, were all negative. Further treatment in the hospital resulted in subsidence of the fever for eight days, but the patient died two days later with bronchopneumonia, without our having made a definite diagnosis. Subsequent examination revealed lymphoblastoma of the reticulum-cell type.

This case illustrates the difficulty which one encounters in making a diagnosis in some instances. When suspicion of this disease is great enough and when the patient's condition permits, one may well be justified in searching the abdomen for involved lymph nodes.

Lupus Erythematosus. The disseminated type of lupus erythematosus is another disease producing fever which may be difficult to diagnose. The difficulties encountered are especially marked in the absence of a rash and when other frequently associated characteristics are late in making their appearance. The disease usually pursues a prolonged course and has a special predilection for young females. Fundamentally, it should be remembered, lupus erythematosus produces changes in collagen tissue which affect serous and synovial membranes and the vascular system. Thus, it shows an early tendency for the occurrence of arthritis and arthralgia, for the appearance of albumin and erythrocytes in the urine, and for the development of pleural or pericardial effusion. Hargraves' work[3] relative to the detection of the L.E. cell in bone marrow or peripheral blood has been a real contribution to the early diagnosis of this condition.

In the case of a woman 47 years of age, our attention was focused on a presenting and persisting complaint of pain in the right upper part of the abdomen. When she was first seen, the urine contained neither erythrocytes nor albumin, and the hemoglobin concentration and blood counts were normal. It is of importance, however, that the patient did have pleural effusion, and that thoracentesis, which was done on several occasions, was always followed by a febrile response which contrasted with the irregular mild fever that she had at other times. Our attention was also directed to the presence of a moderate lymphadenopathy which suggested malignancy, but biopsy of one of these enlarged lymph nodes showed only inflammatory tissue. Repeated and intensive investigative studies produced no more than negative results.

Some weeks later, when urinalysis showed erythrocytes and albumin, and when leukopenia developed, these findings were associated with the pleural effusion and the lymphadenopathy. The picture was further completed when it was recalled that the patient had given a history of arthralgia occurring in previous months. The clotted-blood test which was then done was found to be positive for L.E. cells, and the subsequent course was typical of lupus erythematosus.

This is an instructive case, for it illustrates the value of the L.E. clot test, and in addition, it shows how certain presenting symptoms can lead one astray. This is frequently the case when attention is drawn to individual features of the disease, and when the over-all picture of interlocking segments of the complete pathologic process is consequently neglected. Mistakes of this type are frequent in the consideration of the different entities producing obscure fever, and it is only when our knowledge of these diseases increases to the point where we physicians have an acute awareness of the possibility of their existence that we are able to recognize them.

Infectious Mononucleosis. This disease constitutes another not infrequent cause of fever. Usually, the fever lasts from five to ten days, but it may persist for three or four weeks and produce sequelae which persist for longer periods. The disease occurs primarily in young adults and is char-

acterized by lymphadenopathy, lymphocytosis with the appearance of abnormal lymphocytes, and an elevated titer of sheep-cell agglutinins. Difficulties in diagnosing this condition arise in cases which lack the usual features of the disease and in instances in which unusual complications have arisen. One patient recently seen at the Clinic had a febrile course owing to infectious mononucleosis immediately after operation. This occasioned much concern before the diagnosis could be established.

In the following case of a 60-year-old woman, the situation was complicated by the fact that she had had fever for two weeks prior to her admission, and when first seen had neither lymphadenopathy nor a palpable spleen. Examination, however, did reveal acute thrombophlebitis of one leg and a palpable liver. Urine was normal, and she had no anemia. The leukocytes numbered 4,400, with slight lymphocytosis of 35 per cent and neutrophils of 57 per cent. The blood smear showed a tendency to microcytosis. Brucellosis, lymphoma and hepatic disease were all considered in the differential diagnosis. Agglutination tests for Brucella and the typhoid-paratyphoid group of organisms, repeated blood cultures, the L.E. clot test, roentgenograms of the chest and repeated stool tests for parasites and ova were all negative. A heterophile antibody reaction showed a titer of 1:16. Examination of the sternal marrow revealed scattered granulomatous lesions. Thirteen days after admission, the patient's blood smear suggested infectious mononucleosis, and shortly thereafter, definite lymphocytosis was found in association with leukocytoid forms. From 1:16, the heterophile antibody reaction became 1:32 seven days later, and finally 1:64 after another seven days had elapsed. It subsequently returned to 1:8. The diagnosis of infectious mononucleosis was made only because of our continued suspicion and repeated examinations.

This case illustrates the value of rechecking the titers of various suspected agglutinins in blood and of obtaining blood smears later, even though the first ones failed to show any abnormality. A similar value, of course, is attached to repeating roentgenograms of the thorax, stool tests and various other measures during the course of a febrile disease.

Periarteritis Nodosa. This is a disease of protean manifestations which usually gives rise to fever at some time in its course. Among the commonest manifestations are hypertension, albuminuria, hematuria, increase in the sedimentation rate of erythrocytes, and symptoms resulting from involvement of the nervous system or of the abdominal organs. Diagnosis of this disease may be established through a muscle biopsy which reveals characteristics of panarteritis in a small artery.

One patient with this disease whom we saw recently had lost 15 pounds in the three months preceding his admission. At that time, he complained of anorexia and dysphagia, and gave a history of arthritic pains and cardiac failure. He had recently been diagnosed as having diabetes mellitus. Examination at the Clinic disclosed blood pressure of 160 mm. Hg systolic, and 80 diastolic. The knees and left wrist were swollen, and he had a low-grade fever. Urinalysis revealed Grade 2 albumin, with Grade 3 erythrocytes and Grade 2 leukocytes. The value for hemoglobin was 7.9 Gm. per 100 cc., with 3,250,000 erythrocytes and 6,100 leukocytes per cubic millimeter of blood. The value for blood urea was 46 mg., and for fasting blood sugar 149 mg. per 100 cc. Roentgenograms of the chest showed nothing of significance, and those of the esophagus and stomach showed a small hiatal hernia. Excretory urograms were essentially negative, and examination of the sternal marrow was negative. Many investigative procedures were done, but none led to a positive diagnosis of the underlying condition. Suspicion was directed largely to a metastatic malignant neoplasm, but it was never confirmed. No localized arterial involvement was ever noted, but the protean manifestations of the disease should have led to a greater suspicion of periarteritis nodosa than we ever entertained. After the patient died, some two months later, the autopsy revealed the condition.

COMMENT

Conditions such as those which I have mentioned constitute a real challenge to the diagnostician, for the true nature of the disease is often so deeply hidden that the problem appears unsolvable. When the final examination reveals the undiagnosed disease, the physician always feels a real regret, for retrospective thinking will usually reveal one or more clues which he failed to heed and which would have led him to a solution of the problem.

I have purposely omitted the majority of infectious diseases from this presentation, for I have felt that the greatest problems in diagnosis are presented by the diseases which I have considered, many of which are relatively common. The diagnosis is frequently missed in these conditions because undue thought is given to isolated symptoms, with consequent neglect of the symptom picture as a whole. A continuing awareness of the existence of those diseases and an understanding of their pathologic changes and resultant symptoms should lead us to suspect them more often and to pursue the investigative procedures that will make their diagnosis possible.

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Prevention of Prematurity

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MUCH HAS BEEN SAID about the marked drop in the mortality rates which has occurred during the past two decades in infants under one year of age. However, if further analysis of the improved figures is undertaken, it becomes evident that the improvement has occurred almost entirely in infants between the ages of one week and one year. There has been little improvement in the death rates during the first few days of life. Many deaths during that period are due to congenital anomalies, but the majority are due to causes which must be considered as possibly preventable. Among these causes we must list prematurity.

When the subject of the premature infant is introduced, the obstetrician's reaction is to "pass the buck" to the pediatrician. The prevailing philosophy seems to be that there is little that the obstetrician can do to solve the problem. It is true that in most instances the delivery of a premature infant probably cannot be prevented, but it is equally true that all possible is not being done to prevent premature delivery. This discussion will attempt to point out ways in which the obstetrician can influence prematurity.

PRE-ECLAMPTIC TOXEMIA

The etiology of pre-eclamptic toxemia of pregnancy is still unknown. The most effective therapy is interruption of the pregnancy, but delivery of a premature infant may result. For many years we have taught that early recognition and treatment of signs of impending or actual toxemia can alter the course of the disease and allow a toxemic pregnancy to be carried closer to term before interruption may be necessary. Nevertheless, many physicians seem unconvinced about the advisability of treating signs of excessive weight gain and evidence of fluid retention until the late signs of hypertension and/or albuminuria are also present. Salt restriction and mild sedation at the first sign of excessive weight gain and fluid retention may postpone the more serious signs of pregnancy toxemia. Such preventive treatment is particularly indicated in patients with known pre-existing essential hypertension. The use of hypotensive drugs has not, in our experience, been of much value. Frequent observation and prompt institution of hospital treatment when evidence of pre-eclampsia appears remains the best form of management. There is no one sign which will indicate when interruption of the pregnancy is necessary. Here one must rely on clinical judgment, balancing the known risk to the mother and infant in allowing the pregnancy to continue, against the known risk to the infant from premature delivery. To us, the best clinical guide has been the daily quantitative determination of albumin excretion. We hesitate to allow a pregnancy to continue in the face of rising albuminuria, irrespective of the blood pressure levels.

PLACENTA PREVIA

The change in attitude toward the management of placenta previa during the past ten years has been reflected in a higher fetal salvage rate in the presence of this pregnancy complication. Not too many years ago, the diagnosis of placenta previa demanded immediate evacuation of the uterus. This dictum no longer holds. If the diagnosis of placenta previa is made between 28 and 36 weeks' gestation, it is usually possible to carry the pregnancy for an additional period of time before interrupting it. If the diagnosis is made after 36 weeks, the fetus is estimated to be of term size, and if interruption of the pregnancy can be carried out without undue risk to the mother or the infant, there is no reason for attempting to prolong the pregnancy. The patient who presents the difficult problem is the one who develops bleeding at 32 to 34 weeks. It is essential that the source of the bleeding be ascertained as accurately as possible without jeopardizing the pregnancy. Here, the x-ray can be of great help. Usually a lateral film of the abdomen in such a patient will show the placenta to be implanted high on the anterior or posterior uterine wall, ruling out the diagnosis of placenta previa. The vagina and cervix must then be inspected to rule out lesions there. If such examination is negative, bed rest is instituted until the bleeding has subsided, after which the patient may resume her usual activties. If the roentgenogram indicates that the placental site is low, it is usually still possible to prolong the pregnancy under a regime of restricted activity.

It is essential that one bear in mind that placentography can be misleading if it is done prior to the thirty-second week. We have recently seen a tragic case of that sort. The patient was a 30-year-old woman who had a history of intermittent bleeding throughout the pregnancy, with an especially profuse episode just prior to the x-ray. Her physician had failed to appreciate the significance of the more or less continuous spotting, and had neglected to inspect the cervix. The radiologist had interpreted the placentagram as indicating

placenta previa. It was therefore assumed that the bleeding was due to the low-lying placenta, and no further investigation was carried out. After several additional bleeding episodes, the patient ultimately was sectioned. There was no placenta previa. Two months postpartum, the cervix was inspected and found to contain a well-advanced carcinoma. Even when the x-ray diagnosis seems quite clear, the cervix must be visualized so that one can rule out local lesions.

ELECTIVE CESAREAN SECTION

The contribution of the elective section to the incidence of prematurity is not an inconsiderable one. It seems that the only way in which this problem can adequately be met is through the postponement of all elective sections until the onset of labor. A recent article by McNeill* in the February issue of the AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY points up this problem very well. The report covers a series of 944 sections, of which 677 were of the elective variety. The elective sections produced premature infants in 7 per cent of the cases. McNeill's conclusions were that "a reduction in the perinatal mortality can be accomplished if every effort is made to avoid the delivery of a premature infant. The usual incidence of prematurity can be lowered by awaiting the onset of labor in elective sections." Obviously it is more convenient for all concerned to schedule the elective section. However, if in so doing we are increasing the risk to the infant—and apparently we are—the matter of convenience cannot be allowed to set the time for the elective section.

RH SENSITIZATION

A few years ago, obstetricians were contributing to the incidence of prematurity by inducing labor prior to term in cases of Rh sensitization. It was soon realized, however, that the fetal salvage rate was not improved by premature delivery. The problem of hemolytic disease was only made more difficult by the addition of prematurity. Better results will be obtained if such pregnancies are allowed to go to term and if exchange transfusion is utilized promptly and repeatedly when necessary.

INEXPLICABLE PREMATURE LABOR

What about the patient who is threatening to go into premature labor for no apparent reason? Is there anything that can be done to forestall labor? This is a practical problem which confronts all who deal with obstetric patients. The efficacy of any type of hormone therapy in such a case is a matter of considerable disagreement. Most clinicians have now come to the conclusion that substitutional steroid therapy has little if any beneficial effect. Recently, some have felt that the administration of the so-called "pregnancy hormone" relaxin is effective in stopping premature labor. We have had some experience with this material. The preparation which we have used is Releasin, and the results we have obtained through using it in cases of threatened premature labor are summarized in Table 1.

TABLE 1

TREATMENT OF PREMATURE LABOR

Gestational Age in Weeks	*Treatment*	*Effectiveness*
27-31	Releasin	55%
	Rest and Sedation	35%
32-37	Releasin	50%
	Rest and Sedation	30%

Although these figures might be interpreted to indicate some beneficial effect of Releasin in the patients on whom it was used, we are not prepared to draw such conclusions at the present time. Our detailed analyses indicate that the treated cases are not entirely comparable with the controls. There are so many variable factors that it is difficult to obtain two series of cases that are strictly comparable. Our general impression at the present time is that Releasin may have a beneficial effect in some cases of threatened premature labor. We continue to use it, for it has no apparent harmful effects, and an occasional case seems to benefit from its administration.

SUMMARY

The obstetrician can aid in the prevention of prematurity in the following ways:

1. Recognizing and treating pregnancy toxemia early
2. Delaying active treatment of placenta previa
3. Delaying elective cesarean section until the onset of labor
4. Allowing Rh sensitized pregnancies to go to term.

There is still disagreement as regards the use of hormones in the treatment of threatened premature labor. Some slight evidence has been accumulated that the administration of relaxin is effective in postponing the onset of true labor in some cases.

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* McNeill, D. B.: Perinatal mortality associated with cesarean section. AM. J. OBST. & GYNEC., 71:304-309, (Feb.) 1956.

The Catastrophic Complications of Ulcerative Colitis: Cancer, Perforation and Massive Bleeding

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THE TERM *ulcerative colitis*, as it is used here, is intended to encompass those disorders of the alimentary tract in which widespread ulceration of the colon is the predominant feature and in which known specific causative agents have been excluded. In our study, we have included patients having associated lesions of the terminal ileum and those having the segmental form, typically with involvement of the sigmoid and upper rectum.

The complications of ulcerative colitis involve anatomic areas and include entities which at first thought may seem to bear no more than a remote relationship to the colon. One sees serious hepatic derangement, rheumatoid arthritis, a variety of cutaneous and ocular manifestations, profound disturbances of the hematopoietic system and purpuric disorders. Grave disturbances in growth may be seen in children, the end result of which is dwarfism. Some concomitant lesions of the gastrointestinal tract also merit detailed consideration. The association of stomatitis, the possible relationship of peptic ulcer and the relationship of small-bowel ulceration have all received attention from numerous authors.

Those complications which occur as a result of inflammatory changes in the ulcerated colon focus attention upon the local disease. These tend to be largely anal and rectal, such as fissures, ischiorectal abscesses, fistulae-in-ano, anorectal strictures and the like. Other inflammatory complications occur more proximally in the colon. These disturbances include stricture, perforation and hemorrhage.

This presentation is to be limited to a consideration of three serious and often catastrophic complications of ulcerative colitis: carcinoma, perforation and massive bleeding. These are of such gravity that they materially influence the indications for elective surgical treatment of the disease. Indeed they constitute indications for either urgent or emergent surgery.

In the management of these grave complications, colectomy is the only safe surgical therapy. Ileostomy, in an occasional instance, is a temporizing measure.

This discussion cannot include all of the indications for surgical treatment of this disease. Surgery was introduced in the management of it about 60 years ago, when appendicostomy was used. To review briefly, ileostomy with complete diversion of the fecal stream, and cecostomy for irrigation of the colon were introduced by Brown, in 1912.[1] Staged segmental resection of the colon came into use in the 1930's. More extensive resections, with a reduction in the number of stages, began to be commonplace after 1940. Other operations that have been suggested, and which have been performed varying numbers of times, include vagectomy, sympathectomy and presacral neurectomy, and recently, prefrontal lobotomy. There has been more general acceptance of colectomy following the improvement in the construction of ileostomies and the development of well-tolerated ileostomy appliances. There has been less of the pitying attitude toward the so-called handicap of ileostomy, of late, and there has been a gradually increasing appreciation of the fact that life can be maintained in health and a state of social acceptance after total colectomy.

CANCER

Of these complications, cancer secondary to chronic ulcerative colitis has recently attracted a great deal of attention. Jackman in 1940,[2] Cattell in 1948,[3] Gleckler in 1950,[4] Lyons in 1951,[5] Shands in 1952,[6] Counsell in 1952[7] and Bargen in 1954[8] have contributed heavily to the literature on the subject.

It is difficult to determine the true incidence. Each of the cited authors reports a number of cancer cases over a period during which a number of patients with ulcerative colitis were seen, but the relationship between the number of cancer patients and the total number of ulcerative colitis patients may give no more than a distorted impression of the malignancy potential. Bargen and his coworkers estimate that cancer of the colon occurs 30 times more frequently in ulcerative colitis patients than it does in persons of the same age groups in the general population.[8] But there are several modifying factors which must be considered. How many of those who died early in the course of the disease might have developed cancer if they had lived out their normal life expectancy?

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How many of those who had colectomy during the period of observation would have developed cancer if the disease had been permitted to continue unchecked? How many of those who were seen during the period of Bargen's study were free of cancer only because cancer had had insufficient time in which to develop? Improvements in supportive therapy during the past two decades probably have enabled greater numbers of patients with continuously active disease to become cancer candidates.

Several generalizations appear permissible. The likelihood of a patient's contracting cancer is related strikingly to the duration of his ulcerative colitis. Shands, Dockerty and Bargen[6] noted an average of 15.3 years in 73 cases studied at the Mayo Clinic. In their series, only 11 per cent had had ulcerative colitis for fewer than five years, and only 24.7 per cent for fewer than ten years. Similar observations are to be found in other reports. Our recent experience (Table 1) substantiates this striking relationship. Two of our patients were studied intensively in infancy and early childhood, and the course of the disease was described in detailed records. Case No. 3, in Table 1, was reported in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY by Dyson and Moore in 1929.[9] In this small series observed in the past five years, the relationship of cancer to early onset of ulcerative colitis is impressive. In 1940 Jackman, Bargen and Helmholz[2] pointed out the high incidence of cancer with ulcerative colitis that had appeared before the patient reached 16 years of age.

Several authors have said that young ulcerative colitis patients are more likely to develop cancer quickly than are older ones. That statement seems obviously to reflect the view that ulcerative colitis constitutes a pre-cancerous state.

Cancer secondary to ulcerative colitis certainly is not confined to young patients. We suspect that cancer of the colon was a consequence of ulcerative colitis in several of our own older patients in recent years.

Generally, these cancers have had a gloomy prognosis. Four of our six patients had widespread seeding of peritoneal surfaces at the time of the initial exploratory operation. In case No. 4, in Table 1, there was perforation of the cancer, with extensive submucosal and intramural spread, and death occurred within two months. No single lesion can be indicted consistently in relation to the onset of cancer. The pseudopolyp is not to be confused with the adenomatous polyp, the latter being uncommon in ulcerative colitis. As regenerative phenomena, pseudopolyps are common in ulcerative colitis, but the evidence for classifying them as precancerous doesn't seem convincing. Their presence may complicate diagnostic considerations, and radiographically it may be difficult, if not impossible, to distinguish them from adenomatous polyps. The same is occasionally true in proctoscopic or sigmoidoscopic evaluation. Squamous

TABLE 1

ULCERATIVE COLITIS AND CANCER

CASE NO.	AGE SEX	DURATION of DISEASE	FIRST SEEN, UNIV. HOSP.	DURATION of CANCER SYMP.	ACTIVITY of DISEASE	COMPLICATIONS of DISEASE	LOCATION of NEOPLASM	ROUTE of METASTASIS	HISTOLOGIC TYPE	DEFINITIVE THERAPY	PALLIATIVE THERAPY	OUTCOME
1.	M 21	6 years Onset at 15 years	1951	8 weeks (Apr. 1951)	Several remissions & exacerb.	None	Left portion, trans. colon	Peritoneal	Poorly differentiated adenoca	None	Intraperit. Au 198	Death 1 mo. Post-op.
2.	M 27	14 years Onset at 13 years	1937	6 months before operation (June 1951)	Never had complete remission	Fistula-in-ano	Ascending colon	Peritoneal	Colloid adenoca. Moderate differentiation.	None	Intraperit. Au. 198	Death 7 mos. post-op.
3.	M 27	25.5 years Onset at 18 months	1947	6 months before operation (July 1952)	Short remission at 4 yrs. of age. Continous activity since.	Fistula-in-ano Partial obstruction of sigmoid	Cecum, trans. colon and sigmoid	Peritoneal	Colloid adenoca. Moderate differentiation	None	Ileostomy	Death 6 months post-op.
4.	F 27	20 years Onset at 7 years	1936	Unknown. Operation Apr. 1954	Continuous activity	Dwarfism portal cirrhosis arthritis	Cecum and ascending colon with diffuse permeation to sigmoid flexure	Direct invasion through wall with perforation	Poorly differentiated adenoca	Ileostomy followed by resection of colon, cecum to sigmoid		Death 2 months after partial resection of colon
5.	F 36	20 years Onset at 16 years	1954	Unknown. Intestinal obstruction Sept. 1953	Continuous with partial remissions	Thrombophlebitis	Sigmoid	Peritoneal and hepatic	Poorly differentiated adenoca	Cecostomy followed by partial colectomy before admission	Intraperit. Au 198 Jan. 1954 Oct. 1954	Death 13 months following resection of colon
6.	F 34	32.5 years Onset at 18 months	1922	5 months Dec. 1954 Ushered in by hemorrhage	Continuous activity	Amyloidosis Chronic albuminuria with hypertension fistula-in-ano	Rectum	Lymphatic (9 lymph nodes)	Poorly differentiated adecona	Total colectomy starting with abd.-perineal resection		Living & well 1 year after abdomino-perineal resection

metaplasia may occur in the regenerating colonic mucosal surface. Carcinomas in this group tend to be poorly differentiated and to spread early. Occasional instances of extensive submucosal spread are seen, and as Brooke has suggested,[10] may render one-stage total colectomy-protectomy highly desirable. As Counsell and Dukes have shown,[7] the cancerous area may appear as a dense stricture with ill-defined borders. Multifocal areas of development are relatively common. In the series reported by Shands,[6] there were multicentric cancers in 21 of the 40 patients examined.

In all of the cases tabulated in Table 1, the onset of ulcerative colitis occurred in childhood or young adulthood. The disease was of relatively long duration. Activity was generally continuous without complete remission, and the degree of colitis was far-advanced. These observations should indicate the need for objective reappraisal of those patients who have had the onset of ulcerative colitis in childhood or in early adulthood and in whom unmistakable activity is continuing. When neoplastic change occurs, it constitutes virtually a death sentence. One must consider whether there should not be an arbitrarily fixed length of time beyond which a conscientious physician should think himself forced to advocate surgical extirpation of the colon. Rather than blaming any single premalignant lesion, it appears that we should assign responsibility to the presence of long-standing mucosal destruction and regeneration.

INTESTINAL PERFORATION

Intestinal perforation, free or concealed, has long been one of the most dreadful complications of ulcerative colitis. In reviewing 145 patients hospitalized at University Hospitals in the past decade, we have been unable to find an appreciable difference in the occurrence of perforation, but our studies suggest that survival has become more likely in recent years because more means have been made available for strenuous supportive treatment. From our review of individual cases, it seems certain that there is considerable difficulty in ascertaining whether or not free perforation exists. Free, unwalled-off perforation is less common than is the finding of previous perforation, as manifested by fecal fistula, and internal fistulae between colon and bladder or between colon and small bowel or walled-off abscess. Neoplasms may perforate (case No. 4, Table 1).

One may find signs and symptoms of perfora-

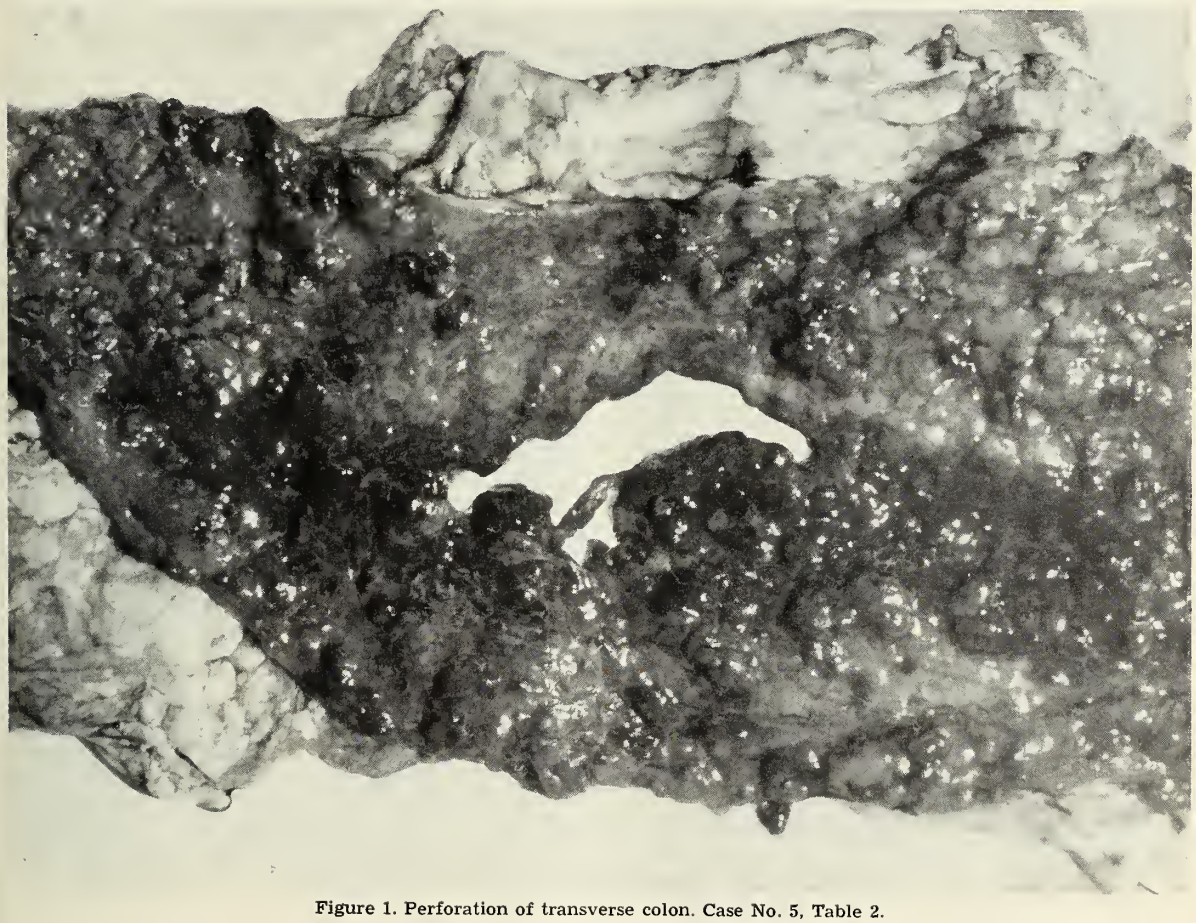


Figure 1. Perforation of transverse colon. Case No. 5, Table 2.

tion and may discover peritonitis at operation without being able to demonstrate gross leakage. Free perforation and impending perforation may be heralded by severe ileus and extreme abdominal distention, but without rigidity and with no more than minimal tenderness (cases No. 3 and No. 5, in Table 2). In several instances not summarized in Table 2, there was no specific clue in the patient's history that indicated when the perforation had occurred. For example, fecal fistula of the umbilicus was present in a 13-year-old girl who had had ulcerative colitis for seven years. An abscess had been present at the umbilicus for several weeks. In another patient, a 15-year-old boy who was admitted to the hospital with signs of abscess in the groin, there was a pointing psoas abscess. Communication between the fecal fistula and the sigmoid colon was ultimately demonstrated. He had had ulcerative colitis for 12 years. In still another case, perforation into the urinary bladder from the sigmoid portion of the colon was demonstrated in a 66-year-old woman who gave a history of two and one-half months of ulcerative colitis.

Perforation is most likely to be a complication of severe, rapidly advancing ulcerative colitis. It is somewhat less likely to occur in long-standing cases if there is dense fibrosis of the colonic wall. There may be rapid progression to death from peritonitis (case No. 1, Table 2); or walling-off and consequent obstruction (case No. 5, Table 2, and Figure 1); or perforation into a neighboring viscus (case No. 3, Table 2); or development of fecal fistula. With reasonable grounds for establishment of the diagnosis of acute perforation, exteriorization of the area by colonic resection and establishment of ileostomy is indicated. If there appears to be a walling-off, the preferable procedure is ileostomy, with resection of the colon at a subsequent stage. Massive bleeding may occur concomitantly or subsequently, further complicating the management of the disease (cases No. 3 and No. 5, Table 2).

The anti-inflammatory action of adrenocorticotrophin (ACTH) and cortisone are factors to be considered in the acute or early phases of this disease. Whether these agents may precipitate perforation or massive bleeding must be taken into consideration. Whether too abrupt withdrawal may precipitate this disaster is speculative. These drugs do exert a masking action, once perforation has occurred.

Signs and symptoms of free perforation may be present, even though little evidence of it is found at laparotomy. Such were the circumstances in

TABLE 2

ULCERATIVE COLITIS AND PERFORATION

CASE NO.	AGE	SEX	DURATION of COLITIS	STATE of ACTIVITY	SIGNS of PERFORATION	SITE of PERFORATION	THERAPY	COURSE	STEROIDS	PRESENCE of MASSIVE BLEEDING
1.	48	F	6 weeks	Acute, severe ileo-colitis	Manifest. Classic signs of free perforation	Terminal ileum	Closure, emergency operation	Death 2 days post-op., diffuse peritonitis	None	None
2.	48	F	8 months	Acute, severe, progressive	Equivocal	Walled off--right portion of trans. colon	Ileostomy, cecostomy, emergency operation	Rapid improvement. Subsequent removal of entire colon	ACTH for 45 days without improvement. Tapered off and stopped 2 days prior to acute episode	None
3.	26	F	15 months	Acute severe exacerbation	Signs confusing. Gradual increase in distention. Free gas in peritoneal cavity	Left portion, trans. colon, perforated into jejunum and ileum	No emergency procedure. Elective colectomy, closure of fistulae 6 mos. later	Extremely critical for many weeks. Ultimate recovery following total colectomy	ACTH given 9 days following perforation. Long course of administration. Developed numerous inflammatory complications	Severe bleeding. Onset 6 days after perforation
4.	17	F	5 years	Severe exacerbation, 3 mos.	Rapid onset of acute abdominal signs. Demonstration of intramesenteric gas.	Transverse colon	Ileostomy, cecostomy as emergency	Improved. Ultimate recovery following total colectomy	Course of ACTH given 3 months prior to acute episode	None
5.	34	F	6 weeks	Fulminating, rapid deterioration	Distention, high fever, severe bleeding	Transverse colon, walled off against spleen, stomach and left lobe of liver	Emergency Ileostomy. Partial colectomy performed 18 days later	Improved. Ultimate recovery following total colectomy	None	Bleeding continued to be intermittently severe until partial colectomy performed

case No. 2, Table 2. In that 58-year-old woman, there was evidence of a walled-off perforation of the right portion of the transverse colon. The terminal ileum may be involved in the acute process —that is, in the ileo-colic form of the disease. The ileum, rather than the colon, may be the site of perforation (case No. 1, Table 2). Radiographic evidence of intramesenteric perforation may be present (case No. 4, Table 2 and Figure 2).

MASSIVE BLEEDING

Hemorrhage of varying degree is a common accompaniment of both the acute and the chronic forms of ulcerative colitis. Before taking up this complication, we should like to define *massive hemorrhage* as that degree of bleeding sufficient to produce shock secondary to blood loss. The complication is relatively uncommon. In a series reported by Ripstein, Miller and Gardner,[11] four instances of massive bleeding were observed in 72 cases. There were only three instances of this seriousness among the 145 hospitalized patients whom we studied, though there were several who showed varying signs of acute blood loss and who required emergency blood transfusions, without demonstrating frank shock.

Massive hemorrhage can be catastrophic in its manifestations. Patients with intestinal perforation may also have serious hemorrhage. Patients with cancer secondary to ulcerative colitis may have not only perforation, as has already been said, but also brisk hemorrhage. In a long-stabilized instance of well-tolerated chronic ulcerative colitis (case No. 6, Table 1 and Figure 3), hemorrhage was the signal that warned of neoplastic change. Death can occur from massive hemorrhage. In one instance, a psychotic male patient of 84 years was admitted with a history of massive rectal bleeding of less than 24 hours' duration. No past history was obtainable. The autopsy findings demonstrated involvement of the descending colon and sigmoid, with chronic ulcerative colitis. In another somewhat similar instance, a 94-year-old man was admitted for treatment of an intertrochanteric fracture of the femur. Following open reduction and internal fixation of the fracture, his condition rapidly deteriorated, and he developed massive rectal bleeding. At autopsy, there was an acute necrosing ulcerative process involving the rectum and sigmoid, rather sharply segmentalized in distribution. Careful search was made for evidence of a specific dysentery, but none was found. There was nothing in the past history that was suggestive of the disease. In both of these instances, the underlying disease process went unrecognized until autopsy was performed—unfortunate though it may be to make a diagnosis only on the basis of autopsy findings.

Alarmingly massive hemorrhage may be seen

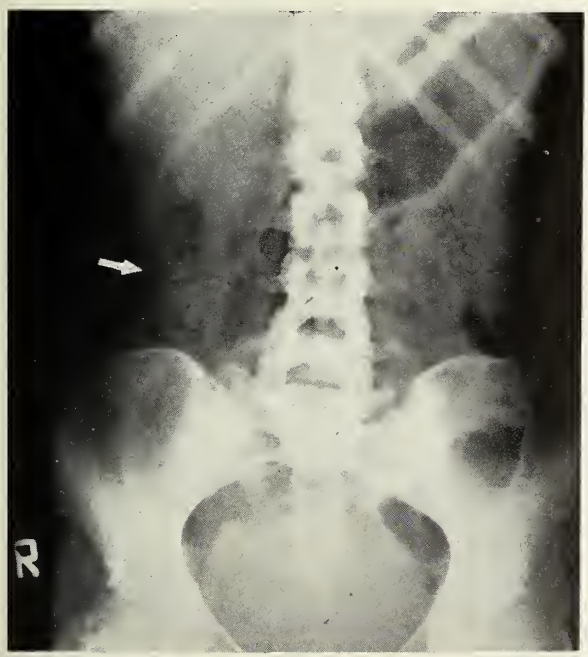


Figure 2. Radiographic illustration of air within mesenteric and retroperitoneal spaces following colonic perforation (indicated by arrow). Case No. 4, Table 2.



Figure 3. Carcinoma of rectum. Note extreme shortening and fibrosis of colon. Case No. 6, Table 1.

in the defunctionalized segment of the colon following ileostomy alone, or following ileostomy and partial resection of the colon as in case No. 1, Table 3. In this patient, the first episode of severe bleeding occurred on April 17, 1951, and he was treated with multiple transfusions. He was on adrenocorticotrophin (ACTH) therapy at the time, and the dosage was tapered off. On May 5, 1951, massive bleeding recurred, and emergency surgery was performed, with establishment of ileostomy and resection of the right half of the colon. Massive bleeding began once again, and on May 7 a left partial colectomy was performed as an emergency procedure. The patient ultimately made a good recovery. Throughout these episodes, he required 44 pints of blood.

The relationship to steroid therapy is of prime interest. In one instance (case No. 3, Table 3), there was gradual reduction in dosage and then withdrawal of adrenocorticotrophin (ACTH) therapy two days prior to the onset of massive bleeding. The patient had had two previous episodes of severe bleeding, one of them five years and the other six weeks prior to that episode. At the present time, it appears that one must hesitate about administering these steroid hormones in patients with active ulceration if they are bleeding grossly or if they have had previous episodes of severe bleeding.

The bleeding is usually diffuse (Figure 4). Rarely is any localized site found, except in the instance of bleeding neoplasm. Bleeding of sufficient magnitude to produce shock should demand the most vigorous blood replacement. Resection may be necessary on an emergent basis, and this resection must be of sufficient magnitude to encompass all of the area involved in the active bleeding process.

SUMMARY

Three types of catastrophic complications of ulcerative colitis have been discussed. The incidence of colonic cancer as a complication of this disease is not definitely known, but the evidence suggests that it is relatively high in those patients who have had prolonged active disease. To prevent this disaster, surgical intervention must be considered in those who have had unremitting activity for five or more years and who have a reasonably great life expectancy. Intestinal perforation and massive bleeding are complications of acute ulcerative colitis or of violent exacerbations of the disease. The administration of adrenocortocotrophin (ACTH)

TABLE 3

ULCERATIVE COLITIS AND MASSIVE BLEEDING

CASE NO.	AGE SEX	DURATION of DISEASE	ACTIVITY	SEVERITY of BLEEDING	BLOOD ADMINISTERED PRIOR TO SURGICAL TREATMENT	INTERVAL BETWEEN MASSIVE BLEEDING & SURGICAL TREATMENT	TOTAL BLOOD GIVEN DURING EPISODE	SURGICAL TREATMENT	STEROID THERAPY	SUBSEQUENT COURSE
1.	32 M	6 weeks	Acute fulminating abrupt onset	Massive	12 pints	First episode 15 days prior to surgery. Second episode 12 hours	44 pints	Ileostomy & rt. hemicolectomy. 3 days later abdominal colectomy completed because of continued bleeding.	3 weeks ACTH at first episode. This was then tapered off and stopped.	Stormy initial course. Later had abdominal perineal resection and good recovery.
2.	21 F	2 years	Moderately acute exacerbation. Rapid loss of weight	Massive at onset. 5 pints blood given in 4 hours. Smaller subsequent episodes of bleeding.	25 pints	3 months	35 pints	Ileostomy, followed later by staged total colectomy	None	Recovery
3.	39 F	5 years	Moderately acute exacerbation 6 weeks. Had had 2 previous episodes of severe bleeding 5 years and 6 weeks before	Massive	7 pints	3 days from onset to surgical treatment	13 pints	Ileostomy & colectomy to sigmoid	Meticorten given 7 mos. prior to episode, ACTH intermittently during preceding 6 wks. Tapered off 2 days prior to episode. Cortisone given during operative period	Recovery

or cortisone may help to cause these complications. In patients afflicted with perforation and hemorrhage, surgical therapy as a part of the emergency treatment may be life-saving.

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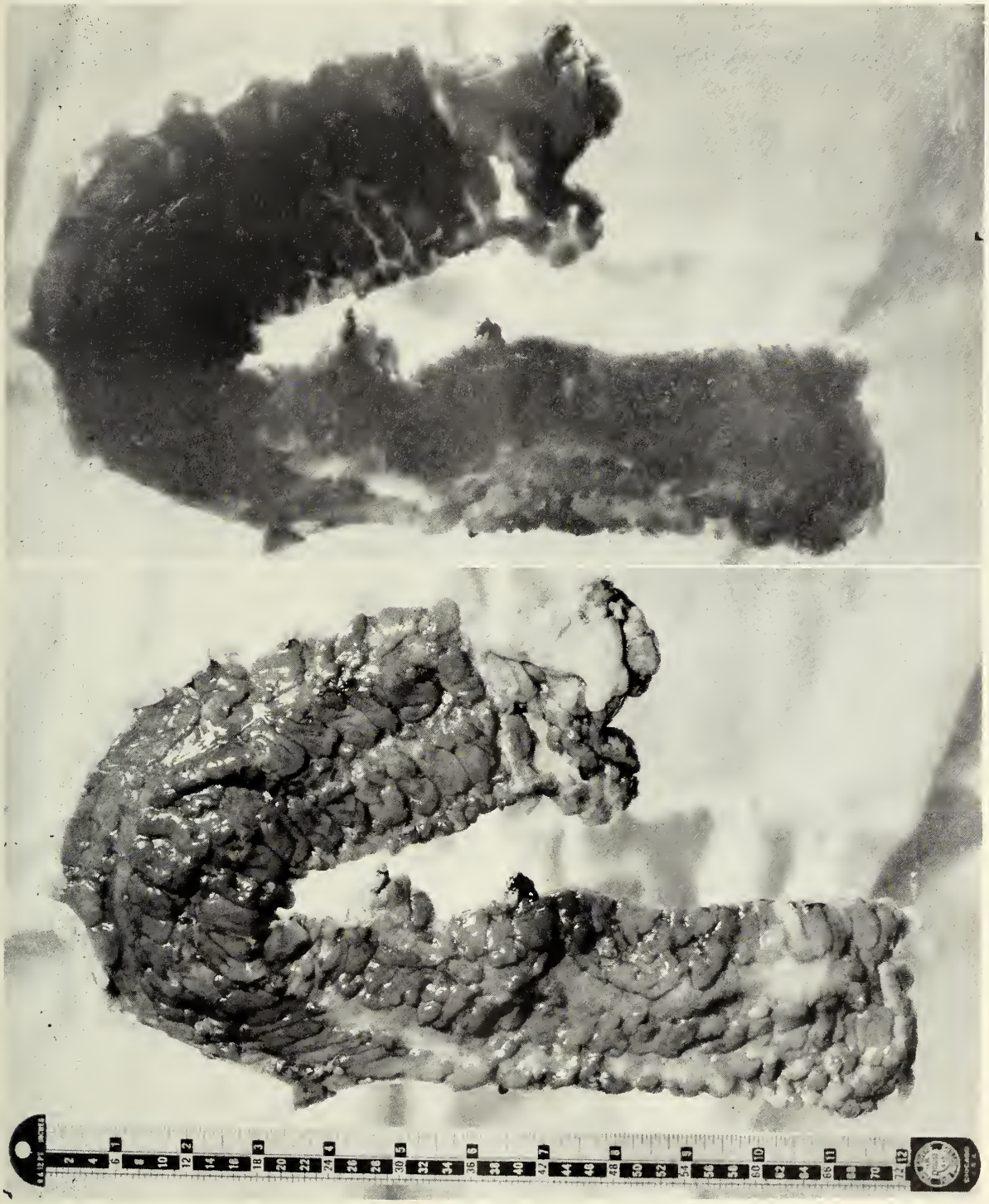


Figure 4. View of colon resected for massive bleeding (case No. 1. Table 3). Lower view shows deep, longitudinally oriented ulcers. In upper view, the specimen is transilluminated.

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Contact Dermatitis of the Hands

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INFLAMMATORY DERMATOSES of the hands form an important group of diseases commonly seen in general practice. Of all the acute, subacute and chronic dermatoses affecting the hands, contact dermatitis is one of the commonest. It is a daily problem in my practice, particularly in industrial patients, for if they are incapacitated, there are consequent social and economic difficulties. A dermatosis confined to the hands is the complaint of one-half of all new industrial patients, and the ailment of one-half of that number, in turn, is contact dermatitis, although it is not always occupational in origin. About 15 per cent of all private and clinic patients have eczema of the hands. Young and old alike are susceptible, but middle-aged persons in particular are often affected with a chronic, fissured type of dermatitis on the hands.

Contact dermatitis is inflammation caused by direct action of various cutaneous irritants on the skin. The cardinal symptoms are redness, swelling, papules and vesicles, associated with itching. These same objective signs are present in several other inflammatory dermatoses of the hands. In some cases, the morphologic appearance is helpful, but in others it is confusing. The diagnosis of contact dermatitis may be simple, or it may prove difficult.

The objective signs appear on those areas of the skin which first came into contact with the cutaneous irritant. Frequently, the disease begins on the hands and remains localized there, but it may later spread to other exposed parts. Cure depends on the discovey and elimination of the cause, and often this is an almost endless task for the patient and for his physician.

PREDISPOSING CAUSES

The characteristics of the skin determine to some degree its defense against cutaneous irritants. For instance, the amount of melanin pigment in the skin is significant. A Negro with an abundance of pigment is less susceptible than is a person with little pigment.

Because the hands are always touching or handling something, they are especially vulnerable. The horny layer or outer covering of the skin protects the hands of most persons against irritants. The oily film supplied mostly by the sebaceous glands is an additional safeguard, but this is lacking on the palms and on the fingertips. These parts are therefore more susceptible to the irritation of water, soluble agents, acids, and in particular, alkalis.

The weakest point in the skin of the hands and fingers, however, is the dorsal surface, for in that area there are numerous openings of ducts and there are hair follicles.

Excessive sweating predisposes to contact dermatitis from solid substances which become irritants in solution. Increased sweating of the hands leads to maceration, to changes of pH, and in some instances to obstruction of the ducts. Under those circumstances, the skin may be unable to resist the effect of irritants. Lessened sweating is also a disadvantage. A dry skin is more susceptible to contact dermatitis from solvents and soaps. Women, on the whole, have drier skin, and are more subject to irritation.

It is generally thought that contact dermatitis is commoner during the summer months because the skin is less protected by clothing at that time. But my experience—and I have made some accurate tabulations—does not support that idea. The number of cases that I see remains constant, regardless of season.

ACTUAL CAUSES

The actual causes of contact dermatitis of the hands are many. The continued growth of industry and the development of new materials for consumers keep adding to the list of causal agents. Contact dermatitis is due either to primary irri-

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tants (non-sensitizers) or to sensitizers. For practical purposes, this distinction is non-essential, since a cutaneous irritant can be both a primary irritant and a sensitizer. Clinically and histologically, sensitization dermatitis is the same as primary-irritant dermatitis.

Primary Irritants. A primary irritant, if it is of sufficient intensity for a sufficient time, causes dermatitis by direct action on the skin at the site of contact. Primary irritants cause various degrees of inflammation, and may cause destruction of the cutaneous and subcutaneous tissues. Experience with primary irritants usually teaches patients to avoid them if possible. The milder ones, acting on the skin for some time, are not thought of as hazardous at the time of exposure, but they are recognized later when inflammation becomes evident. Sometimes exposure to or contact with the milder primary irritants is not remembered. Fortunately, the cutaneous damage caused by these irritants tends to repair itself in most instances, if it is treated conservatively. Secondary infection may occur at the first site of inflammation, but this is infrequent.

Sensitizers. Inflammation of the skin caused by sensitizers is known by various names. Patients sometimes call it "allergy," and as a rule, indeed, they think of cutaneous diseases as allergic manifestations. In general, the word *allergy* serves only to mask ignorance. It is being heard less and less frequently at dermatologic meetings. *Allergy* may be defined as a reaction between an antigen and an antibody which is fixed to the cell. One doesn't learn the cause of contact dermatitis by knowing this definition, however.

The patient is unable to understand why the first contact with a sensitizer fails to produce a visible change on his skin, but subsequently causes an eruption. Exposure even to small amounts or quantities of the substance may result either in a localized inflammation, or in a generalized, disabling attack.

Some of the common sensitizers to which the hands are exposed are dyes, rubber compounds, insecticides and fungicides, foreign and native woods, plants (weeds), photo developers, foods, soaps and cosmetics.

To some sensitizers, the skin of the hands is less susceptible than is the skin of the face and neck, and the site of the eruption in those instances may be misleading. For instance, the hands of industrial workers who handle epoxy resins are exposed earlier and more directly than are the other parts of their bodies, but their hands may not be involved in the eruption. The same is not always true of poison ivy—assuming that it is a sensitizer—for the fingers often are the site first involved with linear lesions.

COMMON CUTANEOUS IRRITANTS

I have difficulty in remembering all of the likely external irritants that the human skin encounters. A list is invaluable to the patient, for it helps him to realize that it is not always easy to find the cause of his eruption. Many patients, after reading the list, keep records of their daily contacts with all substances. I am frequently asked to read such diaries and thereby to find clues to the causes of the contact dermatoses. Often a cooperative patient discovers the cause of his trouble by keeping an accurate record of the substances that he touches and handles.

TABLE 1

CUTANEOUS IRRITANTS ENCOUNTERED BY VARIOUS OCCUPATIONAL GROUPS

Bakers and housewives: cinnamon, flour conditioners, lemon, spices, sugar.
Barbers and beauty operators: rubber gloves, hair tonics, soaps, shampoo materials, permanent wave solutions, hair dyes.
Button factory workers: ivory and horn dust, brass, nickel, gold, silver.
Candy makers: oil of cassia, peppermint, orange, lemon, anise, cloves, vanilla, citric acid, cashew nuts, pineapple, citrus fruits.
Farmers and gardners: plants, woods, artificial fertilizers, insecticides, fungicides.
Food preservation workers: juices, essential oils, food dyes, preservatives, insecticides, vinegar.
Clerks: glue, carbon paper, desk pads, polishers.
Dairy workers: alkaline cleansers.
Diesel mechanics and operators: radiator fluid containing sodium bichromate.
Dry cleaners: solvents, soaps and detergents.
Florists: many plants, fertilizers, insecticides.
Garage workers: solvents, tetraethyl, anti-freezes.
Grocery employees: insecticides, dyes of labels, dry ice.
Janitors: polishes, soaps.
Laundry workers: soaps, starch, bleaching compounds.
Lumber workers: foreign and native woods.
Medical and dental workers: local anesthetics, formalin, rubber gloves (artificial and natural rubber), mercurials, phenol, iodine.
Pastry cooks: essential oils of citrus fruits, vanilla, cashew nuts, cinnamon.
Sporting goods makers and users: lead, rubber, nickel, chrome, leather and leather dyes.
Undertakers: embalming fluids.
Waterproofers: resin, sodium carbonate, chrome, glue, potassium bichromate, turpentine.

INSIGNIFICANT TRAUMA AS A CAUSE

Factors other than cutaneous irritants may account for the initial lesions on the hands. Patients employed in industry, housewives and do-it-yourself handy men receive minor injuries to their hands, usually unilateral. It is a daily experience in my practice to find the patient's dermatitis on or near the site of an injury. Too often the injury occurred months before, and there is no remaining evidence of it. Penetration by slivers of metal is commonly reported today. One complaint is fashionable for a while, and then another takes its place.

The nurse at the plant treats most scratches and abrasions with one or more antiseptics, and protects them with Band-Aids. The housewife, the self-styled nurse at home, keeps her antiseptics in a cabinet where they may have become concentrated through evaporation. Band-Aids, plain or impregnated with an antiseptic, are considered a must in almost every home today.

There is a standing order in many plants re-

quiring that patients with minor injuries must report to the First Aid Department. There, the situation is similar to that which prevails in homes. All abrasions and scratches are treated with any available antiseptic. In some instances, workers who are too busy to seek medical care, together with those who prefer home remedies, wait for treatment until they reach home after work.

I doubt that the time will ever come when the local therapy of minor wounds will be deemed unnecessary. Protection with sterile dressings alone is not the sort of treatment that satisfies the laity —or, indeed, some physicians. The most important part of the treatment of such a wound seems to be to keep it dry and to protect it against moisture and antiseptics. Adhesive applied over wounds is a common cause of contact dermatitis. Generally this is recognized readily if the inflammation is in linear arrangement, or if it is the width of the adhesive. Not always is the cause easily discoverable. Recently, a severe contact dermatitis of the fingers was found to have been caused by adhesive applied to the fingers of cotton gloves. The irritant in the adhesive may penetrate gauze dressings.

Burns of the skin, and especially of the hands, are often the initial site of a contact dermatitis because of the treatment given. Burns caused by hot grease, soldering irons, steam and hot chips are common. Friends or relatives insist that a minor burn be treated with so-called "burn ointments" which are usually available at home, and contact dermatitis may result.

All during the time that minor wounds are healing, exposure to irritants may continue as before. Now that the skin is no longer intact, any of various substances that previously were nonirritating may cause burning and stinging in the site of injury. This is a signal to the patient that infection is beginning and that further self-treatment is required. Antiseptics, disinfectants and germicides are applied, and as the dermatitis becomes worse, still another remedy is tried, thus adding insult to injury.

Overtreatment of minor injuries of the hands is the beginning of contact dermatitis in one-third of the inflammatory dermatoses of the hands. The percentage is high because industrial patients are included. Both at home and at work, it is common practice for mercurial preparations to be used in the treatment of minor injuries, and they may cause dermatitis. The chief offender, in my experience, is merthiolate.

MISCELLANEOUS CAUSES

Cleaning Preparations. Several housewives have recently come to me with contact dermatitis caused by cleaning preparations. Cleaners for walls, wallpaper, marble, wood, windows and fabrics are a few of those which are supposed to possess special virtues, but which may prove to constitute special hazards instead. The most violent cases of dermatitis seen in housewives have been caused by cleaners for stoves.

Rings. Rings are the cause of many injuries, but more often they initiate contact dermatitis, which begins on the ring finger of the left hand. Invariably, contact dermatitis of the hands caused by liquids and semisolids is most severe on skin that has been protected by rings.

Chapping. Chapping of the skin occurs frequently, and it begins on the hands. The commonest hazard acting on the skin externally is water, which is justly called the universal solvent. Water and soaps prolong and intensify chapping, and many times the disorder is made worse by "germicidal" soaps. Chapping is a commoner complaint during changes of weather in the fall and winter than at other times.

DIAGNOSIS

A complete examination of the patient's body should be a routine procedure. By that means one can determine whether the dermatosis is limited to the hands, and often it furnishes other useful information. One must keep in mind the possibility that some other skin disease may be present along with the eruption on the hands, or that the skin disorder may be a symptom of a systemic ailment.

The importance of determining the particular irritant or irritants involved, and the means for doing so, have already been stressed.

Rubber-stamped outlines of the hands—left and right, front and back—on the patient's chart will facilitate a graphic description of the eruption, and notes about the objective signs and symptoms can be added. On the patient's subsequent visits, any change in the eruption should be noted. If new sites have become involved, or if the original ones have become more acutely inflamed, it is likely that the original irritant has continued to contact the skin, or that new ones have been added. An accurate account of the course of the disease in each case is invaluable.

TREATMENT

Contact dermatitis caused by external irritants is usually acute, resulting in redness, vesicles and swelling of the skin. The treatment for this type of ailment should consist of wet dressings, lotions and bland ointments. An agreeable wet dressing is aluminum acetate solution, made by adding one ounce of aluminum acetate to one pint of cold water. A wet dressing of plain cow's milk is available in most homes, and many patients have considerable faith in home remedies. Boric acid or aluminum acetate solution may be added to the cow's milk. The most important thing is to keep the dressings wet. They should be changed frequently, and should be left uncovered, so that evaporation may take place.

As the subacute stage is reached, shake lotions such as calamine lotion without phenol are us-

ually soothing. I have found that ointments during the subacute stage are occasionally irritating and may cause an acute flare-up. Recently I have favored the use of Lassar's paste, which is stiffer, and mild unguents such as boric acid ointment.

Oral administration of antihistamine preparations may relieve itching. But I have been agreeably surprised recently to find that in most patients a placebo is just as effective as are antihistamine drugs for that purpose.

Steroid hormones have been reported as being helpful in the treatment of acute dermatoses. I am not convinced of their value in the treatment of acute contact dermatitis. Occasionally, patients who are recovering from acute dermatitis have an exacerbation caused by soap and water. Aveeno colloidal oatmeal is a good soap substitute which as a rule does not irritate the skin.

ILLUSTRATIVE CASE HISTORIES

Some of the points mentioned are illustrated in the following brief case histories.

Case No. 1. A stripped examination provides a clue to the cause of a patient's trouble. A young man had an eruption on his hands which, on first inspection, suggested contact dermatitis. Furthermore, he was in contact with a number of cutaneous irritants. Upon complete physical examination, I found a similar eruption on his feet, and when I questioned him about systemic drug therapy, he recalled that he had been given injections of penicillin for a cold three weeks previously. A diagnosis of drug eruption caused by penicillin pleased him very much, and he was able to continue in his occupation and recovered from his eruption within two weeks.

Case No. 2. The diagnosis of contact dermatitis is not easy in all cases. A woman employed in the hardware section of a department store consulted me for recurrent linear redness and vesicles on the fingers of her right hand. Her history indicated that she did not handle irritants in her work or at home. After several visits, she finally let drop a remark that led me to discover that the cause of her trouble was primroses. She then discontinued the practice of admiring and touching primroses as she passed them in the department store on her way to the hardware section.

Case No. 3. Linear lesions are not always caused by plants. Some years ago, during the summer, several men came to me with linear lesions on their hands. On their way to work, they took a short cut through a vacant lot, and at first I thought the eruption on their hands was caused by their contact with the weeds that grew there. But during the next several weeks some additional patients came to me from the same manufacturer —men who had not walked through the vacant lot. I then visited the plant and found that the tin plate which they handled was coated with a resin that was the cause of their dermatitis.

Resin causes more trouble during hot weather than during the winter months.

Case No. 4. During the last several years, linear lesions developed in a number of clerks employed by a large department store. Their mysterious skin disease had defied recognition by several physicians. After I had seen one or two of them with linear red streaks, particularly on their left hands, I realized that elastic bands were likely culprits, and such proved to be the case.

Case No. 5. Rubber gloves are a fairly common cause of contact dermatitis. A nurse from a local hospital had consulted some of the staff members because of an eczema on her hands. Simple as it was, none of them had thought of the possibility that rubber gloves were responsible. She discontinued wearing them and was well within three weeks.

Physicians and nurses who develop contact dermatitis from rubber gloves may be seriously handicapped.

Case No. 6. Rubber finger cots may be difficult to accept as the cause of contact dermatitis on one or more fingers until one has seen several patients with this trouble. During the last year, 18 cases of rubber finger-cot dermatitis have come to my attention. One manufacturer has been responsible for all of my cases, and the treatment I have prescribed has consisted of changing the brand of finger cots.

Case No. 7. It took me several months to prove the cause of one case of contact dermatitis. A professional violinist had had an eruption on his hands for five years, and the usual diagnosis by his physicians had been "fungous disease." The patient made a point of the fact that his eruption usually improved or disappeared during the summer. I attributed this phenomenon to his not playing in the orchestra during that season. He did practice, but on another violin in his summer cottage. I suspected that rosin was the cause of his trouble, but patch tests with several rosins failed to cause any reaction. Finally, I learned that he used rosins from different sources. The brand he applied to his bow in the summer came from this country, but that which he used during the winter came from Europe and was sold to him and to his friends by a blind musician. I insisted that he discontinue using the European rosin, and when he did so he recovered within three weeks.

Although we had found the cause of his trouble, the patient was content to resume suffering. He continued to use the imported rosin in order to help his blind friend, who was no longer able to earn his living as a musician.

Case No. 8. A simple object such as a thimble is sometimes the cause of contact dermatitis, and if one is not alert to this possibility he may overlook it.

A woman interested in sewing had an extensive

overtreatment dermatitis on both hands. The tip of her right middle finger was the original site of her eruption, and the inflammation was more intense there than elsewhere. I suggested that her thimble had initiated the trouble, but she promptly disagreed with me, for the thimble had been in her possession and she had worn it intermittently for 25 years. She later proved to herself that the thimble had indeed been at fault by substituting a plastic one, which enabled her to continue sewing without a recurrence of the contact dermatitis.

SUMMARY

Contact dermatitis of the hands is an increasingly common complaint for which there are many predisposing and actual causes. Overtreatment of minor wounds is frequently the original cause, and in many cases that started as contact dermatoses, overtreatment has complicated the difficulty. Determination of the offending agent and avoidance of further irritation, medicinal or otherwise, are essential aspects of management. A list of frequently encountered irritants has been given, and some brief reviews of illustrative cases have been presented.

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The Clinical Significance of Serum Sodium Concentration

EDWARD E. MASON, M.D., PH.D.

IOWA CITY

FLUID AND ELECTROLYTE balance is normally maintained by homeostatic mechanisms. As illness interferes with normal body function, the attending physician must make use of all of the pertinent information obtainable from history, physical examination, simple bedside laboratory aids and serum and chemical analyses to determine the therapy that is necessary for the restoration and maintenance of normal fluid and electrolyte balance. He should consider the patient's needs in terms of (1) daily depletion in urine and through insensible loss; (2) replacement of current abnormal losses; and (3) correction of any imbalance that exists. (See Figure 1.) The correction of existing deficiencies requires a specific diagnosis in terms of (1) volume; (2) tonicity and chemical composition; and (3) acid-base balance (Figure 2).

NORMAL AND ABNORMAL FLUID PHYSIOLOGY

Sodium is of prime importance in maintaining extracellular fluid volume, since it is the chief cation present. Serum sodium concentration does not tell anything about extracellular fluid volume *per se*. However, when there is no gain or loss of sodium from the body, then sodium concentration will vary inversely with the total volume of body water.

Analysis of sodium concentration affords valuable information as to the strength of the body's electrolyte solution—i.e., its tonicity. If tonicity is unknown, the observed concentration of electrolytes cannot be interpreted in terms of composition. If the concentration of sodium is normal, then body water volume and total body electrolyte content are properly proportioned, and a CO_2 combining power of 27 mEq/liter and a chloride of 103 mEq/liter can be considered normal.

When a high sodium concentration is reported, the physician should draw diagrams similar to those shown in Figure 3. First, he should calculate the percentage to which the sodium is elevated above normal, and then he should calculate the expected values of CO_2 combining power and Cl when increased by the same proportion. In the presence of a 10 per cent increase in tonicity as indicated by a sodium concentration 10 per cent above normal, a CO_2 combining power of 27 is actually low. One or more anions must be even higher than would be anticipated from the hypertonicity alone. If this compositional abnormality is not accounted for by a high chloride, then the patient must of necessity have an elevation of phosphate, organic acids or some other unmeasured anion. The presence of acetonuria or an elevated blood urea nitrogen will suggest the cause of the compositional abnormality, if it is not already evident from the history and physical examination.

If the total body water is increased without a proportionate increase in total body electrolyte, the result is hypotonicity and often "water intoxi-

Dr. Mason, an associate professor of surgery at the SUI College of Medicine, read this paper at the meeting of the Scott County Medical Society, in Davenport, on May 1, 1956.

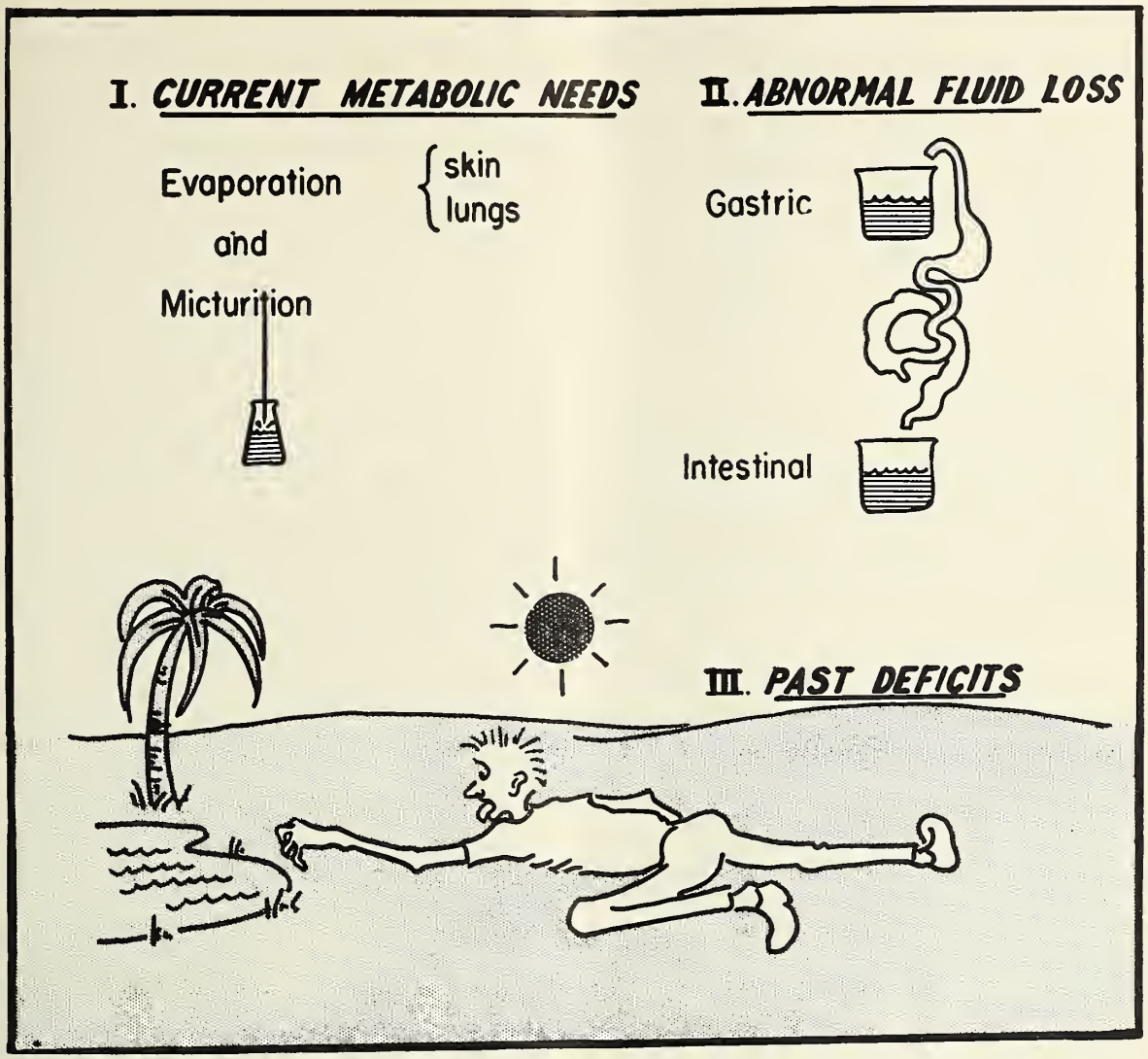


Figure 1. The attending physician should itemize each day the requirements for (1) metabolic needs, (2) replacement of current abnormal loss, and (3) restoration of normal balance. The last of these requires an accurate analysis of the items diagramed in Figure 2.

cation." The presence of an abnormally low sodium concentration allows one to make this diagnosis and to expect all other serum electrolytes to be low. Under such circumstances, a CO_2 combining power of 27 mEq/liter is actually high, and indicates either (1) a primary metabolic alkalosis, or (2) a secondary metabolic alkalosis following respiratory retention of CO_2 as carbonic acid (a primary respiratory acidosis). If tonicity is 10 per cent above normal, the total body water would have to be increased by 10 per cent to restore the tonicity to normal. If the sodium is 10 per cent below its normal concentration, then the total body water would require a 10 per cent reduction in volume for the restoration of normal tonicity. The alternative in the latter case would be to increase total body electrolyte by giving hypertonic electrolyte solution. Insensible loss and excretion of water will cause a reduction in volume, provided that no more water is administered. Hypertonic solutions may be used if the volume is low. If, based upon intake, output and such physical findings as the skin turgor, pulse, etc., it is concluded that the patient has an excess of extracellular fluid volume, then evaporation and excretion of water constitutes the best means for restoring normal tonicity. If an extracellular volume deficiency coexists with the hypotonicity, then one can use hypertonic electrolyte solutions to increase extracellular fluid volume, removing water from the cells and simultaneously correcting the hypotonicity.

THE FLAME PHOTOMETER

Before the days of the flame photometer, the only way by which a clinician could estimate

tonicity was by adding the values for CO_2 combining power and chloride concentration and then observing whether the sum was above or below the normal expected value of 130 mEq/liter—i.e., 27 + 103. It is apparent, however, that if the patient has any elevation of organic acids, phosphates, etc., then the sum of CO_2 and Cl can be seriously misleading as far as tonicity is concerned. Because CO_2 combining power can be above or below 27 mEq/liter solely as a result of abnormalities in tonicity, clinicians were misled in their attempts to identify acid-base abnormalities. This difficulty was superimposed upon an already somewhat complicated problem in that an abnormal CO_2 can indicate either a *primary* metabolic disturbance or a *secondary* metabolic change compensating for respiratory malfunction.

The flame photometer, which allows quick, reliable measurements of sodium concentration,[1] is now standard equipment in most clinical chemistry laboratories. Serum sodium concentration can be relied upon as an index of tonicity. Provided the clinician studies his patients completely, empiricism can be sharpened, and a more accurate qualitative and quantitative evaluation can be made.

INTAKE AND OUTPUT RECORDS, AND BEDSIDE PROCEDURES

It needs to be stressed that the clinician should not rely on serum chemistries to the exclusion of intake and output records, history, physical examination and simple bedside tests. Wangensteen has emphasized[2] that frequent weighing of patients, if accurately done, is of great assistance. Likewise, the examination of fluids lost from the body furnishes valuable information. Most abnormal losses consist of liquids isotonic to the body fluids. There are two notable exceptions wherein excessive water loss occurs. Sweat, which is considered an abnormal loss, has usually about one-third of the tonicity of extracellular fluid. Infantile diarrhea is another loss in which the fluid expelled is hypotonic. Generally, the tonicity of gastric juice, bile, pancreatic juice, etc. is the same as that of extracellular fluid. The chemical composition may vary, particularly with regard to pH and the relative concentrations of sodium and chloride. The abnormal loss through an indwelling gastric tube does not necessarily consist of acid fluid. It takes little longer than the thought itself for the clinician to dip a slip of sodium dinitrophenyl-azo-napthol disulfonate impregnated paper* into the aspirated juice and secure an estimate of pH. If the fluid is acid, then saline makes a satisfactory replacement. If the juice is neutral, one should use 0.9 per cent saline and 1 6 molar Na lactate in proportions of four to one. If alkaline fluid has been lost, the proportions should be two to one.

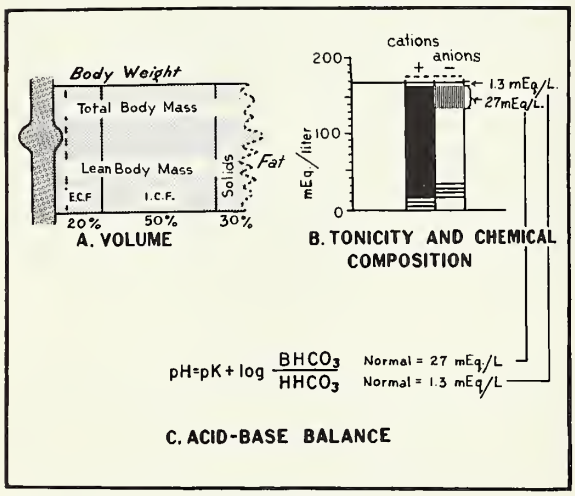


Figure 2. To restore a patient to normal balance, it is necessary that one know qualitatively and quantitatively the abnormalities which are present. A tripartite diagnosis should be made concerning (1) volume, (2) tonicity and chemical composition, and (3) acid-base balance. In diagram A, body weight is shown to include a variable amount of fat. If one considers only the lean body mass, then extracellular fluid (ECF), intracellular fluid (ICF) and solids comprise 20, 50 and 30 per cent, respectively. In diagram B, sodium concentration is shown in black, and because it is the predominant cation, it is an index of tonicity. If the concentration of solutes (tonicity) is normal, then a $BHCO_3$ of 27 mEq/liter is normal. The Henderson-Hasselbalch equation at the bottom of the figure is useful in conjunction with diagram B for interpreting acid-base changes. It is necessary to decide whether the primary abnormality is a deviation of the numerator (metabolic), or a deviation of the denominator (respiratory), and then to estimate what secondary (compensatory) changes may have occurred to bring the pH back toward normal. An estimate of tonicity is an absolute prerequisite to any interpretation of acid-base balance.

This procedure is not entirely accurate, but it is practical. That is to say, it is less subject to error than is the arbitrary replacement of all electrolyte fluids with saline, and much less expensive than running complete chemical analyses on all fluids lost. Provided that the patient's renal function is normal, potassium should be added in the proportion of 40 mEq for each liter used in replacing gastrointestinal fluids.[3] In the seriously ill patient, urine pH and specific gravity should be measured several times a day. A Fantus urinary chloride test[4] is slightly more cumbersome, since it requires several minutes to perform, but it provides additional information that is helpful to the clinician who is prepared to interpret the results.

An equally simple test for estimating urinary sodium concentration at the bedside[5, 6] is becoming popular. Single analyses are useful, but a series of such bedside analyses tells the clinician a great deal more about whether or not the kidney is capable of normal functioning, and if it is not able to do its job, the test shows him just how poorly it is functioning. Occasionally, abnormal renal salt loss, or deficiency in concentrating or diluting urine is found through these tests. The clinician then knows that he must supervise the patient's electrolyte and fluid balance even more vigilantly.

At the chemistry laboratory at SUI and at the laboratory in a nearby private hospital,[7] devia-

* Nitrazine paper (R).

tions in tonicity are observed with about equal frequency. In both areas, the incidence of hypertonicity (sodium concentration of 150 mEq/liter or more) is twice as common as hypotonicity (125 mEq/liter or less). The basic diseases and regimens leading to tonicity deviations are under study at University Hospitals. Renal disease appears frequently to be a prime factor, and poor renal function secondary to cardiovascular disease or to water and electrolyte imbalance itself is often at least a sustaining factor.

MANAGEMENT MUST BE PAINSTAKING

There is little concrete evidence to support the theory that specific diseases of tonicity often exist. Even if they do, it appears that there must be an accompanying organismic factor and/or improper management. If a patient is seen early during his illness and if the physician carefully replaces fluid and electrolytes lost, imbalance will seldom occur. Even in the presence of anuria, the patient can and should be kept normal as regards volume, tonicity and acid-base balance. A change will occur in the composition of his anions, owing to the circumstance that organic acids and phosphates accumulate at the expense of bicarbonate and chloride. Depletion of chloride is desirable under such circumstances, and it is facilitated by gastric suction and replacement with appropriate proportions of 1/6 molar Na lactate and 0.9 per cent saline. A falling sodium concentration in such a patient, especially one below 130 mEq/liter, is an indication that the patient is being given water in excess of evaporation from his skin and lungs. The presence of pleural effusion and generalized edema in anuria is *prima facie* evidence of overtreatment.

Clinicians are at times surprised to find an abnormal tonicity in a patient who is passing several liters of urine a day. Recently, we had a patient who had been hypotonic and who later became hypertonic, but whose urine volume nevertheless ranged between 1800 and 2000 ml. per day. Repeated measurement of the specific gravity revealed isosthenuria. The blood urea nitrogen was elevated in spite of the large urinary output. Since the patient had a central nervous system disease, it might have been tempting to postulate that there was an abnormality of the patient's osmoreceptor system—what has elsewhere been termed "neurogenic hypernatremia."[8] Patients with diseases requiring specialized attention still require the same basic general care. There is no need for a special set of rules for fluid and electrolyte balance in neurosurgery[9] or in any other specialty. In actuality, this patient had variations in tonicity because he was unconscious, and when his tonicity became elevated he was unaware of his thirst. In addition, poor renal function prevented his kidneys from responding to variations in the concentration of circulating antidiuretic hormone. It appears that those caring for him

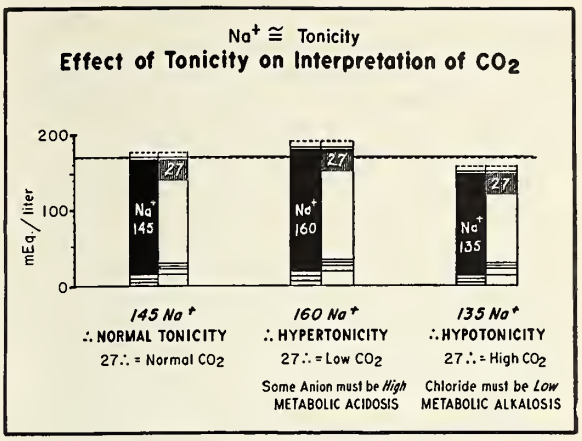


Figure 3. These bar graphs show the concentration of cations (positive charges) and anions (negative charges). The total number of particles (cations, anions and nonionized solutes) in a solution governs its tonicity. Since sodium (in black) is the predominant cation present in extracellular fluid, and since there are usually few nonionized solutes, variations in sodium concentration indicate variations in tonicity. Since any loss or addition of water will affect the concentration of all ions, it is essential that tonicity be estimated before one analyzes the chemical composition.

failed to balance intake and output with sufficient accuracy. Had proper measures been adopted in this connection, it is unlikely that any such abnormality would have occurred.

In connection with the interpretation of low sodium levels, it should be remembered that the presence of cardiac failure, chronic illness, malnutrition and protein depletion may make it unwise to attempt restoring the sodium concentration completely to normal. Up to now, the reason has not been clear, but recent work suggests that in congestive heart failure and in cirrhosis of the liver with hyponatremia, there are other osmotically active substances present in the extracellular fluid.[10] As a generalization, one can say that it is usually wise to treat acute imbalance vigorously, and to treat chronic imbalance more cautiously and over a period of days. In all instances, diagnosis *ex juvantibus* (observing the response to therapy) is an important part of the diagnostic armamentarium.

When severe imbalance occurs, it usually indicates a failure of the physician quite as much as it represents a failure of the normal homeostatic mechanisms in the patient. It is the duty of the physician to compensate for the more or less complete failure of the physiological mechanisms by maintaining fluid and electrolyte balance until such time as normal function is restored. Empiricism will seem to give satisfactory results only in those patients who are really able to maintain their own fluid and electrolyte balances. The physician is incapable of administering optimum fluid and electrolyte therapy who does not know the approximate volume and composition of body fluids, as well as those of the fluids being lost by and being given to his seriously ill patient.

There are two basic rules that indicate why the interpretation of serum sodium concentration merits considerable attention. First, the rule of electrical neutrality provides that there must always be an equal number of positively charged (cation) and negatively charged (anion) particles in an electrolyte solution. Since sodium is the chief cation present in serum, it immediately becomes apparent that any increase or decrease in sodium must be related to a change in the ratio of total body electrolytes to total body water. The second basic rule is that water moves freely in and out of cells, and any alteration in extracellular tonicity will be accompanied by an equal change in intracellular tonicity. Although the concentration of sodium tells nothing about the volume of fluid *per se*, it does carry certain implications with respect to the change in total body water that may be required if tonicity is to be restored to normal.

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Mercy Hospital, Des Moines

Clinicopathologic Conference

May 8, 1956

SUMMARY OF CLINICAL FINDINGS

A 74-YEAR-OLD WHITE woman had first noticed pain in her chest, with extension down her left arm, about 3½ years before her admission to this Hospital. During the month in which she made that discovery, she had a coronary occlusion, but three months later she had made a good recovery. Her blood pressure was then 180/100 mm. Hg. In November and December, 1½ years before her admission, she had several episodes of shortness of breath and pain in the chest. Her blood pressure was 160/80 at that time. Throughout the ensuing twelve months she had no cardiac symptoms, but then on a midwinter evening she undertook to play the piano at a community party. It was 10° below zero outside, and she had to climb a long, steep stairway to get to the meeting hall. At approximately 11:00 p.m., she began having severe chest pains. She was taken home immediately and was in shock when she was seen by her physician. He diagnosed her illness as another coronary occlusion. Her recovery was slow, and it was exactly a month before she was able to sit up in a chair. During this convalescence, she developed rheumatic pains in her right wrist, with swelling and tenderness. She did not respond to the usual arthritic therapy, and the arthritis spread to involve her right shoulder and both knees. Four months later, in June, her feet and legs became swollen. The swelling continued, and the pains in her right wrist, right shoulder and knees became so severe that she was admitted to Mercy Hospital in July.

The patient was obese, uncooperative and seemingly unaware of the seriousness of her illness. No neurologic complaints were elicited, and the patient had no history of mental disease. Recently there had been some decrease in her visual and auditory acuity, but there were no other discoverable abnormalities of her eyes, ears, nose or throat. Her appetite had been poor for several months, and she required laxatives daily because of chronic constipation. There was no history of dark stools, jaundice, diarrhea or other gastrointestinal complaints. There were no complaints referable to the genitourinary tract. Her menopause had occurred 28 years previously, and she had had no postmenopausal bleeding or vaginal discharge.

Her parents had been elderly at death and had died of causes unknown to the patient. There was no family history of tuberculosis, diabetes, allergies, carcinoma or mental or nervous disease. One living sister has Parkinsonism.

The past medical history included the heart trouble that has been described and a left radical mastectomy approximately 16 years before this admission.

On physical examination, the patient was found to be in moderate respiratory distress and chronically ill. The skin was warm and moist, but otherwise normal in appearance. The pupils were reg-

ular and equal, and they reacted normally to light and accommodation. The extraocular movements were normal. On funduscopic examination, there was found to be a Grade II narrowing of the vessels, but no hemorrhages or exudates. The heart sounds were somewhat distant, and the point of maximal impulse could not be determined. There was a normal sinus rhythm, but a Grade II systolic murmur was detectable in the aortic area. The blood pressure was 138/68 mm. Hg., and the pulse rate was 80 per minute. Bronchial sounds were heard on auscultation of the lungs, but no other abnormalities were present. The left breast was surgically absent. The scar was well healed, and no axillary nodes were palpable. The right breast and axilla were normal. The abdomen was obese. No masses were noted, and the liver, spleen and kidneys were not palpable. The back and spine were normal. The right shoulder was painfully limited in motion; the right hand showed intrinsic muscular atrophy; and one finger was painful. The knees were limited at 160 degrees extension, and the joints appeared hypertrophied and nodular, but they did not crepitate. Flexion was limited to 90 degrees bilaterally. The neurologic examination was negative.

Urinalysis on the day following the patient's admission showed acid reaction, straw color, one or two epithelial cells, and no albumin or sugar. A hemogram on the same day showed 13.2 Gm. hemoglobin (86 per cent); red blood cells 4,280,000; and white blood cells 5,600. The differential count showed 57 per cent neutrophils and 43 per cent lymphocytes. The blood urea nitrogen, measured on the third hospital day, was 11.3 mg. per cent; VDRL and Kline flocculation tests were negative; and an electrocardiogram showed left axis deviation, with ventricular strain or coronary insufficiency. The basal metabolism, measured on the fourth hospital day, was +40.

Meticorten was started on admission, 5 mg. three times a day. On her second day in the hospital, the patient began complaining of substernal chest pain, with radiation down the left arm. Her blood pressure was rising, and her pulse was rapid and weak. There was profuse diaphoresis.

Carotid sinus pressure afforded no relief, and there was no decrease in the pulse rate. For the relief of pain, the patient was given 100 mg. of Demerol and Dilaudid every four to six hours. She had some pain and burning on urination at this time. Chest pain with radiation down the left arm to the fingertips continued on the third day of hospitalization, and her blood pressure was recorded at 214/130 mm. Hg. Demerol, 100 mg., was given for pain, and Mercuhydrin, 1 cc. daily, was begun. Later on the third day, the chest pain subsided, and Petrogalar was ordered for constipation.

She had diaphoresis during the night, and early on the morning of her fourth hospital day, she complained of numbness in her fingers, and her respirations were wheezing. At 9:00 a.m., 10 cc. of 1 per cent novocaine was injected into the right subdeltoid bursa. Dyspnea continued. On the fifth day, the patient's general condition was better, and she was able to sit on the edge of her bed for a few minutes. Her appetite was improving, and she complained only of pain in the knees.

On the sixth day, she complained of inability to void. She was voiding small amounts of urine quite frequently, and on the seventh day an area of intertriginous dermatitis made its appearance between the buttocks. This was treated with zinc oxide cream. On the seventh and eighth days, she complained of left hip pain, but she was able to sit in a chair for a short time. On the ninth day she again complained of difficulty in voiding, and the urine was noted by the nurse to be dark grayish brown. She was having urgency, and was voiding frequently in small amounts. She was catheterized, and the urinalysis showed acid reaction, cloudy reddish brown color and a specific gravity of 1.013. The albumin was 4+, and on microscopic examination, the high-power field was found to be loaded with red and white blood cells. Fluids were forced. A Foley catheter was inserted, and on irrigation a reddish sediment was obtained. The patient complained of back pain during the night, and early in the morning of the tenth day she complained of pain in the abdomen. A bloody drainage was then issuing from the Foley catheter.

At approximately 8:00 a.m., the patient was drowsy and had marked diaphoresis. Petechiae were noted on her arms and legs, and she had vomited 100 cc. of reddish fluid. Her blood pressure was 108/78 mm. Hg., and she complained of pain over her bladder. Her blood pressure fell to 120/0 at approximately 9:00 a.m. Ilotycin, 200 mg. every six hours, was ordered, and ephedrine, grain 3/8, was ordered for shock. A urologist who had been called to examine the patient suggested combiotic and replacement of the Foley catheter. The patient continued to have marked diaphoresis, pain in the region of the bladder, and bright reddish-brown drainage from the catheter. Her skin was cold and clammy, and her pulse was rapid and weak.

By mid-afternoon on that tenth day, the blood pressure was unobtainable, and showers of petechiae were noted over the patient's entire body. Her speech became incoherent, and ephedrine, grain 3/8, did not cause a rise in her blood pressure. Cortisone, 100 mg., was given at approximately 6:00 p.m., and the pulse was regular at 144 beats per minute. The skin was cold and clammy. Petechiae had now become ecchymoses over the entire body. The temperature rose rapidly to 105.6°F. at 8:30 p.m. Cheyne-Stokes respirations were noted, and the blood pressure was unobtainable. Blood chemistry examinations, per-

formed at 6:00 p.m. on that day, revealed: sodium 142 mEq/1; potassium 2.45 mEq/1; and chloride 78.5 mEq/1 or 443 mg. per cent. At 9:20 p.m. on her tenth hospital day, the patient expired.

DISCUSSION

Dr. F. C. Coleman: Each of you has received an abstract of the clinical history of the patient to be discussed tonight. I should like to remind you that Dr. Charles H. Gutenkauf and Dr. Edmund T. Burke, who will discuss the case, had access only to the information contained in the abstract that has been given to you. The autopsy diagnoses have not been revealed to them.

Dr. Gutenkauf: The history of chest pain with radiation down the left arm, along with a shortness of breath, is typical of coronary artery disease, and the protocol states that the patient did indeed have a coronary occlusion 2½ years before entering this Hospital. Six months before her admission here, she apparently had another coronary episode precipitated by overexertion on a cold night. The patient was 74 years old and had had a mild, intermittent hypertension which apparently was true diastolic, rather than arteriosclerotic, since there was some elevation of the diastolic pressure. While convalescing from the infarction that occurred six months before she was admitted for treatment of her terminal illness, she developed a rheumatic pain in the right wrist which gradually spread to involve the right shoulder. The right shoulder became painfully limited in motion, and the protocol mentions intrinsic muscular atrophy and one painful finger. This sounds like the shoulder-hand syndrome, a well recognized entity that complicates myocardial infarction in perhaps five to ten per cent of cases. It also follows hemiplegia and is occasionally associated with cervical osteoarthritis. There are also some idiopathic cases. It is a reflex vasomotor dystrophy which causes a stiff and painful shoulder to develop about three to six weeks after the myocardial infarction. With it, there is limitation of all ranges of motion, and there is diffuse tenderness throughout the shoulder girdle. At the same time, or somewhat earlier or later, the hand and fingers on the affected extremity become swollen, puffy, tender and limited in motion. In the hand and wrist, during the early phases, there is a dusky redness and a swelling which are diffuse, rather than maximal over the joints as in arthritis. Some weeks later, the induration of the subcutaneous tissues of the fingers increases, and the hand becomes white and very hard—indeed almost wooden in consistency. Fibrosis of the palmar fascia develops, and this progresses to the third stage, in which there is considerable muscular atrophy of the subcutaneous tissues and intrinsic muscles of the hand. The fibrosis of the palmar fascia simulates a Dupuytren's contracture. This syndrome responds very well to physiotherapy, and many times physiotherapy is greatly facilitated through the use of adrenal steroids. I think the description in the protocol fits this syndrome very well.

The difficulty with the knees seems most strongly to suggest osteoarthritis, if one can judge from the report of the examination of the knees and from the fact that the patient was an obese, 74-year-old lady.

The patient gave a history of some recent decrease in her visual and auditory acuity, but something of that sort might have been expected. The possibility that the terminal illness may have been a complication of the radical mastectomy seems so remote as to be altogether negligible. The dyspnea revealed by the physical examination suggests that the patient might have been in congestive failure, as does the fact that she had some edema of both the feet and legs about one month before her admission to the Hospital. The swelling might also have been due to pain in the extremities, in that the pain had confined her to a chair, and her sitting there with her legs in a dependent position may have brought about the edema. The ophthalmoscopic examination suggested a benign hypertension. The aortic systolic murmur might have been due to a valvular lesion, or might have been due simply to a dilated aorta, in which case one would expect the aortic second sound to have been accentuated.

The laboratory examinations were not particularly revealing. The electrocardiogram showed left-axis deviation, with ventricular strain or coronary insufficiency. The fact that the stigmata of a previous myocardial infarction were not clearly recognizable in the electrocardiogram does not rule out myocardial infarction at some time in the distant past. The basal metabolic rate was reported to be +40. Now if this patient were in congestive failure, the basal metabolic rate might very well have been elevated, since dyspnea produces hyperventilation. Some other test of thyroid function is more appropriate in such circumstances. Meticorten was given on admission because of the arthritis. On the day after admission, the patient had another severe coronary episode that lasted for 24 hours. An electrocardiogram was taken the day after she developed her pain. No subsequent electrocardiograms were taken. The fact that the single electrocardiogram does not show a fresh infarction does not rule out the possibility that there was one. Nearly half of the time, the first electrocardiogram fails to show the myocardial infarction, but repeated electrocardiograms will usually do so if they are taken at intervals of three or four days. Sometimes two days are sufficient to show changes recognizable as evidence of infarction. Also, no sedimentation rate was done. The white cell count rises within 24 hours, and the sedimentation rate rises within 48 hours after infarction, so that repeated determina-

tions would have been necessary. The blood pressure during this episode rose to 214/130 mm. Hg., but that reading doesn't necessarily rule out myocardial infarction, since in a small percentage of patients, hypertension occurs during the acute pain of the infarction. Later, the blood may fall to normal or even hypotensive levels. The traditional concept that every patient with a myocardial infarction has a low blood pressure cannot be considered a hard and fast rule.

On her third day in the hospital, the patient is said to have been dyspneic and wheezing, as if she might have some congestive failure. Mercuhydrin was given, a prescription which suggests that the physician thought she had congestive failure. No mention is made of there having been any fever on the days following this acute episode of pain, however, and one could expect some if there had been a myocardial infarction. Yet Meticorten might conceivable have suppressed a febrile response to a myocardial infarction. The patient had numbness in her fingers, which might be an anginal equivalent. She had continuous urinary tract difficulties beginning upon the day of her admission and becoming progressively worse on the fourth, fifth, sixth and eighth hospital days, with burning and frequency.

On the tenth day—the day of the patient's death —a number of very remarkable events occurred. The urine became bloody and bright red; petechiae developed all over the body; there were shock, diffuse sweating and stupor; the petechiae became more numerous and eventually became confluent; and the patient's temperature rose, terminally, to 105.6°F. She went into progressively deeper shock in spite of ephedrine. She was given average doses of Ilotycin and ephedrine, both by the oral route apparently, and three hours before her demise she was given intramuscular cortisone.

This part of the history suggests the Waterhouse-Friderichsen syndrome which usually occurs with meningococcemia but may also occur with staphylococcal, pneumococcal or hemolytic streptococcal septicemia. Adrenal hemorrhage also occurs in other conditions such as pemphigus or leukemia, in the hemorrhagic diatheses and with anticoagulant therapy. But in such instances septicemia does not occur, and there are no generalized petechiae. It is also responsible for one per cent of neonatal deaths. Newborn infants who have experienced difficult and prolonged labors, particularly breech presentations, are likely to have adrenal hemorrhage, with collapse and shock. The petechiae in this instance certainly would not be due to any of the usual blood dyscrasias, or they would have made their appearances at some time earlier in the illness. Even an acute leukemia usually would have become evident earlier, the manifestations being anemia, high fever or some abnormality of the white or differential count. The embolic phenomena which occur as a result of myocardial infarction affect large arteries and do not produce petechiae and ecchymoses in the skin such as have been described in this case. Uremia can produce widespread hemorrhage, but in this patient it was not present on admission, and the hemorrhages came on too acutely for them to have been due to this condition.

The multiple petechiae in the Waterhouse-Friderichsen syndrome are due to minute bacterial emboli which lodge in the arterioles and capillaries. Many times in acute meningococcemia, one can recover the bacteria by scraping petechial lesions or by taking an actual biopsy of one of the lesions. In addition, the extension of these petechiae to become ecchymoses is due to the toxic effect of infection on arteriole and capillary walls. The electrolytes in this case were essentially normal, with the exception of a slightly low potassium and chloride which do not fit particularly well with a Waterhouse-Friderichsen syndrome but do not contraindicate it, either. Usually, in acute adrenal cortical insufficiency, the electrolytes are normal. The eosinophil count is not particularly helpful in these cases, since if the patient has an acute systemic infection, the eosinophil count may be depressed by a small number of circulating cortical hormones which are insufficient to meet the body's increased demands for hormones.

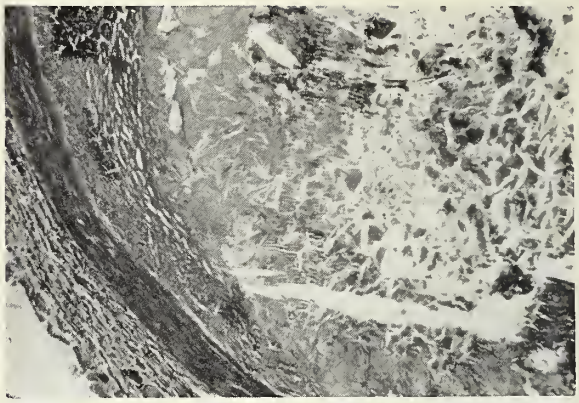
Dr. Burke and I feel that this patient developed a urinary tract infection which spread under the helpful influence of the Meticorten and became a generalized, systemic infection. The result, we think, was a Waterhouse-Friderichsen syndrome. Periarteritis is an entity which one should consider in almost any clinicopathologic conference where there is more than one system involved. But early in the disease there should have been symptoms such as peripheral neuritis, cerebral manifestitions, abdominal pain, pulmonary symptoms, etc. Usually in periarteritis, there is intermittent fever, anemia and an elevated leukocyte count.

My conclusions, therefore, are that this patient had coronary artery disease, with quite possibly a recent infarction and certainly a recent coronary insufficiency, and a fulminating urinary tract infection resulting in a Waterhouse-Friderichsen syndrome.

Dr. Burke: Dr. Gutenkauf has covered most of the points in this case. I shall try to explain why we think the urinary tract played a role in the etiology of the overwhelming infection that brought on the adrenal apoplexy. In the clinical history, this patient is not reported to have had any difficulty other than arthritis and heart trouble up to the time of her admission to Mercy Hospital. A urinalysis recorded on the following morning was reported to have been negative. She



1. Photograph taken at time of autopsy, showing ecchymosis into the skin of the right thigh and knee.



2. Photomicrograph of anterior descending branch of the left coronary artery, showing hemorrhage into an atheromatous plaque.

was an obese woman, and one would assume that the tests were probably made on a catheterized specimen. But the same day that her urine was reported normal, she began to complain of pain and burning on urination. If an infection is going to occur in the urinary tract, it has to get there somehow, and one of the common means of its spread is direct introduction. The patient showed no evidence of having had an infection prior to the time of her admission. Perhaps the catheterization itself played a role in the onset of her urinary difficulties, particularly since there was a fairly rapid onset of pain, burning and frequency. There is not much mention made of the patient's urinary symptoms between the day after admission and four days later. By that time, she was beginning to have rather marked urgency, frequency and burning. By the eighth day, she was passing dark urine loaded with red and white cells. I think it is rather remarkable that she had had no antibiotics up to the ninth day after admission. The bloody drainage that occurred on the terminal day might be explained as the result of bacterial emboli, renal infarction and infection. She also had associated hematemesis and petechiae. Such antibiotics as she was given were administered on the day of her death, and in relatively small doses.

I think some mention probably ought to be made of the effect of cortisone on the action of antibiotics and the action of antibiotics on urinary infections in general. The host defense certainly plays an important role in aiding the antimicrobial action of any of the antibiotics. Cortisone or hydrocortisone depresses the defense mechanism of the host. The depression of defenses is especially pronounced when no more than barely curative amounts of antibiotics have been administered. With large doses of antibiotics, the host is less essential in the defense mechanism. Since hydrocortisone or cortisone may inhibit the inflammatory reaction, it certainly constitutes a potential hazard. As to how long it takes this suppression to occur, I do not think there is any general agreement. But some say that it can occur within five days on doses as small as 20 mg. of cortisone a day. Probably the action of hydrocortisone is greater than that of cortisone in depressing or decreasing the resistance to infection.

Dr. Gutenkauf and I agree upon the diagnosis of adrenal apoplexy or Waterhouse-Friderichsen syndrome, with the precursor being a severe urinary tract infection. The kidneys may show embolic abscesses, pyelonephritis and embolic bacterial infarcts.

Dr. William C. Shinkle: Was the blood pressure ever taken at the legs, particularly when the patient complained of pain in the abdomen and chest?

Dr. Coleman: No.

Dr. Shinkle: Were any provocative tests performed for a pheochromocytoma?

Dr. Coleman: No.

Dr. Shinkle: I would suggest that there is still a possibility of a pheochromocytoma or a dissecting aneurysm of the aorta.

Dr. John K. Uchiyama: We ought to keep in mind the possibility of lupus. The age and situation do not quite fit, but it is something to remember.

FINDINGS AT AUTOPSY

Dr. Coleman: Autopsy was performed approximately 1½ hours after death. Petechial hemorrhages and ecchymoses were noted in the skin over the entire body. They were especially marked on the extremities. The ecchymoses were of recent origin, being pinkish red in color. The left breast was surgically absent. Except for obesity, no other significant observations were made during the external examination of the body.

Examination of the chest revealed moderate cardiac hypertrophy, the heart weighing 380 Gm. There were apical infarcts, both recent and old,

which involved the anterior one-third of the interventricular septum. Advance coronary arteriosclerosis was noted in both the right and left coronary arteries. The anterior descending branch of the left coronary artery, approximately half way in its course, contained a large atheromatous plaque in which recent hemorrhage was noted. The lumen of the artery at this point was reduced to approximately one-fifth of its normal size. No fluid was noted in either pleural cavity, and the lungs were crepitant.

Examination of the peritoneal cavity revealed mild enlargement of the liver, and recent hemorrhages into the wall of the stomach and jejunum. No free fluid was present in the peritoneal cavity, and no lesions of other abdominal organs were observed.

Examination of the genitourinary tract revealed hemorrhage into the calices and pelvis of each kidney, and hemorrhage into each ureter. The right calices and pelvis were dilated, and the proximal portion of the right ureter was also dilated to approximately three times normal size.

Microscopically, sections of the ureter revealed acute hemorrhagic ureteritis. Acute hemorrhagic cystitis was also present.

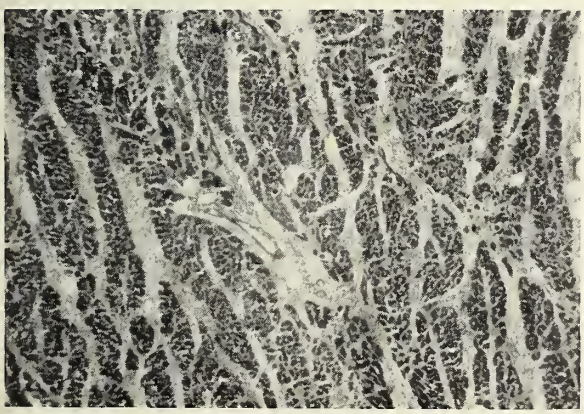
The adrenal glands were normal in size, with no hemorrhage present. Microscopically, hydropic degeneration of the cortical cells in the zona glomerulosa was noted. The hemorrhages into the wall of the stomach and the jejunum were of recent origin and were submucosal in location.

Examination of the brain revealed moderate cerebral cortical atrophy.

A blood urea nitrogen test performed upon a specimen obtained at the time of autopsy revealed 43 mg. per cent. A blood culture taken from the right heart at the time of autopsy yielded Pseudomonas aeruginosa.

PRINCIPAL AUTOPSY DIAGNOSES

1. Septicemia due to Pseudomonas aeruginosa
2. Acute hemorrhagic inflammation of the genitourinary tract due to Pseudomonas aeruginosa
3. Acute and old myocardial infarction complicating coronary arteriosclerosis.



3. Photomicrograph of apical myocardium showing recent infarction, with edema, polymorphonuclear leukocytic infiltration and intense eosinophilic staining of muscle fibers.

CONCLUDING REMARKS

Dr. Coleman: Pseudomonas aeruginosa is a motile, gram-negative bacillus which for many years was regarded as non-pathogenic for man. In recent years, however, it has been recognized as a common infectious agent in human beings. Infections due to it can be of almost any type. In addition to a number of cases of septicemia similar to that of the patient under discussion tonight, there have been accounts of meningitis, abscesses (both subcutaneous and involving the viscera), enteritis, and particularly, inflammations of the genitourinary tract. In fact, as a cause for resistant infections of the urinary tract, Pseudomonas aeruginosa is now regarded by urologists as being just as important as Proteus vulgaris, if not more so.

Pseudomonas aeruginosa can be readily identified by bacterologic means. It ferments very few sugars, dextrose being the only one that it readily attacks. It produces large amounts of hydrogen sulphide, and also produces a bluish green



4. Photograph of left kidney showing hemorrhage into calices, pelvis and ureter.



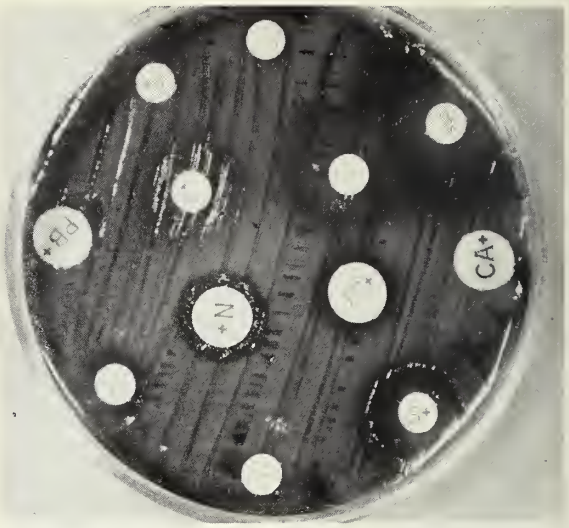
5. Microphotograph of right ureter showing acute hemorrhagic ureteritis.

pigment. This pigment is of two types: pyocyanin is soluble in chloroform and can be extracted from any culture of Pseudomonas aeruginosa; another pigment, also bluish green in color, is water soluble.

Pseudomonas aeruginosa is resistant to many of the antibiotics. In fact the microorganism recovered from the patient under discussion tonight was resistant to all of the readily available antibiotics except streptomycin and triple sulfa.

Septicemias due to this organism usually appear only in the presence of some debilitating disease. We have had several such cases, however, in the last two years. One that I recall was in a youngster with acute leukemia.

Dr. Gutenkauf: As regards a specific medication for this disease, I might say that polymyxin has been successful in some cases. Usually, one should choose the antibiotic on the basis of bacterial sensitivity tests. I think that this patient should probably have been treated as if she had some adrenal cortical insufficiency, and at the same time she should have been given massive doses of whatever antibiotic had been decided upon to cover the situation. If later it was evident that there was probably no adrenal cortical insufficiency, the steroid hormone therapy could be gradually discontinued.



6. Photograph of 24-hour cultures of Pseudomonas aeruginosa on blood agar, showing sensitivity to streptomycin and triple sulfa, but resistance to 10 other antibiotics.

Dr. Eugene H. McCaffrey: If your patient had a history of occlusion, you couldn't very well use cortisone, could you?

Dr. Gutenkauf: Yes, if you have a good indication for it, I can see no reason for not doing so.

Dr. Richard E. Paul: The clinical pathologic conference report in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY for May, 1956, deals with a case in which death was due to this same organism. One interesting thing about Pseudomonas aeruginosa that was brought out in the discussion of that case was that the pigment produced by the organism is in itself an antibiotic and has been used as a parenteral antibiotic. It was found too toxic, however, for regular usage.

Dr. W. G. Richards, Resident: Another point about Pseudomonas aeruginosa is that it may remain viable in polyethylene catheters despite their having been "sterilized" in the usual manner. This circumstance may furnish a clue as to the means by which the organism was introduced into the genitourinary tract of this patient whom we have been discussing tonight.

THERAPEUTIC DIETS

The Commission of Nutrition of the Medical Society of the State of Pennsylvania is now making available a revised edition of its MANUAL OF STANDARD THERAPEUTIC DIETS. Over 30 separate diets are presented, ranging from liquid diets through soft diets to various types of modified diets. Recommended dietary allowances are given, as well as a food composition table for a short method of dietary analysis.

Copies can be had for $1 each. Address the Commission at 230 State Street, Harrisburg.

Coming Meetings

In State

Sept. 12	**Urology Conference.** SUI, Iowa City
Sept. 13-14	**Postgraduate Course and Annual Meeting.** Iowa Academy of General Practice. Savery Hotel, Des Moines
Sept. 18-19	**Pediatrics Refresher Course.** SUI, Iowa City
Oct. 12-13	**Radiology.** SUI, Iowa City
Oct. 21	**ISMS Conference of County Presidents and and Secretaries.** Hotel Savery, Des Moines
Oct. 25	**Dermatology & Syphilology.** SUI, Iowa City

Out of State

Sept. 3-5	**Am. Assoc. of Blood Banks.** Somerset Hotel, Boston
Sept. 3-8	**Conference (in Spanish) on Occupational Medicine and Toxicology.** Coral Gables, Florida
Sept. 3-28	**Basic Course in Use of Radioisotopes.** Oak Ridge, Tennessee
Sept. 4.-15	**Regional Anesthesiology.** New York University, NYC
Sept. 5-7	**Psychiatric Principles in General Practice.** U. of Minn., Itaska State Park, Minnesota
Sept. 5-8	**Annual Meeting, Colo. State Medical Assn.** Stanley Hotel, Estes Park
Sept. 5-11	**Otolaryngologic Plastic Surgery.** Manhattan General Hospital, NYC
Sept. 6	**Graduate Education Clinics.** Glockner-Penrose Hospital, Colorado Springs
Sept. 6	**Preventive Medicine Aspects of City-County and School Health Units.** Univ. of Nebraska College of Medicine, Omaha
Sept. 6-8	**Annual Meeting, Utah States Medical Assn.** Hotel Utah, Salt Lake City
Sept. 6-8	**American Association of Obstetrics & Gynecology.** Hot Springs, Va.
Sept. 9-13	**International College of Surgeons.** Palmer House, Chicago
Sept. 9-14	**American Congress of Physical Medicine and Rehabilitation.** Ambassador Hotel, Atlantic City
Sept. 9-15	**International Congress of Clinical Chemistry.** Barbazon-Plaza Hotel, NYC
Sept. 10	**Essentials of Lower Extremity Bracing, Am. Congress of Phys. Med. and Rehabilitation.** Ambassador Hotel, Atlantic City
Sept. 10	**Medical Writing, Am. Congress of Phys. Med. and Rehabilitation.** Ambassador Hotel, Atlantic City
Sept. 10-12	**Postgraduate Assembly.** St. John's Hospital, Santa Monica, Calif.
Sept. 10-12	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Sept. 10-14	**Diagnosis of Malignancies.** University of Oregon, Portland
Sept. 10-14	**Ninth Annual Symposium on Pulmonary Diseases.** University of Colorado Medical Center, Denver
Sept. 10-14	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 10-15	**Aviation Medicine.** Ohio State University, Columbus
Sept. 10-15	**Recent Advances in Clinical Practice.** University of Buffalo
Sept. 10-21	**Gastroscopy and Gastroenterology.** Cook County Graduate School of Medicine, Chicago
Sept. 10-21	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 10-21	**Trans-meatal Surgery.** Mt. Sinai Hospital, NYC
Sept. 10-21	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Sept. 10-22	**Recent Advances in Surgery.** New York University, NYC
Sept. 11-12	**Pain Control, Am. Congress of Physical Med. & Rehabilitation.** Ambassador Hotel, Atlantic City
Sept. 12-15	**Fluid & Electrolyte Balance.** University of Washington, Seattle
Sept. 13-15	**Surgical Planing for Dermatologists.** Tulane University, New Orleans
Sept. 14-15	**Scientific Session, Georgia Heart Association.** Gen. Oglethorpe Hospital, Savannah
Sept. 15	**Treatment of Common Emergencies.** U. of Texas, Houston
Sept. 16-19	**Washington State Medical Association.** Olympic Hotel, Seattle
Sept. 17-21	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Sept. 17-21	**Advances in Medicine & Surgery.** U. of Pennsylvania, Philadelphia
Sept. 17-21	**Dermatologic Histopathology.** New York University, NYC
Sept. 17-21	**Histopathology.** New York University, NYC
Sept. 17-21	**Ocular Expressions of Systemic Disease.** New York University, NYC
Sept. 17-21	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Sept. 17-21	**Electrocardiography and Heart Disease: Advanced Course.** Cook County Graduate School of Medicine, Chicago
Sept. 17-22	**Review of Clinical Pediatrics.** New York University, NYC
Sept. 17-28	**Bronchoesophagology.** Temple University, Philadelphia
Sept. 17-28	**Strabismus, Course II.** Northwestern University, Chicago
Sept. 17-28	**Normal & Pathologic Physiology: Functional and Chemical Aspects.** New York University, NYC
Sept. 17-28	**Serology of Syphilis.** V-D Research Laboratory, Chamblee, Georgia
Sept. 17-28	**Diagnostic X-ray.** Cook County Graduate School of Medicine, Chicago
Sept. 17-28	**Office & Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Sept. 17-28	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Sept. 17-Oct. 26	**Anatomy of Head, Neck & Thorax for Otolaryngologists.** NYU, NYC
Sept. 19-20	**San Diego Postgraduate Assembly.** San Diego County Hospital
Sept. 19-21	**Kimbrough Urological Seminar.** Walter Reed Hospital, Washington, D.C.
Sept. 20-22	**Ophthalmological Conference on Glaucoma.** U. of Calif. Med. Center, San Francisco
Sept. 21	**Symposium on Heart Disease.** Santa Barbara Heart Association
Sept. 21-23	**Mid-Continent Psychiatric Association.** Hot Springs, Arkansas
Sept. 24-26	**Audiology.** New York University, NYC
Sept. 24-27	**Fall Clinical Conference, Kansas City Southwest Clinical Society.** Municipal Auditorium, Kansas City, Missouri
Sept. 24-28	**Ophthalmoscopy.** New York University, NYC
Sept. 24-28	**Dermatology and Syphilology for Pediatricians.** New York University, NYC
Sept. 24-28	**Esophageal Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 24-Oct.5	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Sept. 24-Oct.5	**Intense Review of Internal Medicine.** U. of S. Calif., Los Angeles
Sept. 24-Oct. 5	**Internal Medicine.** Cook County Graduate School of Medicine, Chicago
Sept. 24-Oct. 5	**Surgical Anatomy & Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 24-Oct. 12	**Mobilization of Stapes.** Mt. Sinai Hospital, NYC
Sept. 25-27	**Pediatrics for Pediatricians.** University of Minnesota Center for Continuation Study, Minneapolis
Sept. 25-28	**Instructional Course of American Roentgen Ray Society.** Mayo Clinic, Rochester, Minnesota
Sept. 26	**Pediatrics.** University of Indiana, Indianapolis
Sept. 26-27	**Current Therapy in Pediatric Practice.** Bunts Institute, Cleveland
Sept. 26-28	**Michigan State Medical Society.** Sheraton-Cadillac Hotel, Detroit
Sept. 26-28	**Mississippi Valley Medical Society.** Hotel Morrison, Chicago

Sept. 26-28	**Neuro-otolaryngology.** New York University, NYC
Sept. 27-29	**Institute of Psychiatric Treatment.** Boston State Hospital, Boston
Sept. 28-29	**American Medical Writers Association.** Hotel Morrison, Chicago
Sept. 28-29	**Scientific Session, Washington State Heart Association.** U. of Washington, Seattle
Sept. 29	**Postgraduate Clinic, Marquette University.** Jackson Clinic, Madison, Wisconsin
Sept. 29-30	**Symposium on Trauma.** U. of Calif. Med. Center, San Francisco
Oct. 1-4	**Electrocardiography.** U. of Nebr. Coll. of Med., Omaha
Oct. 1-5	**Review of Recent Advances in Internal Medicine.** Tufts College, Boston
Oct. 1-5	**Physical & Occupational Therapy in Poliomyelitis.** Warm Springs Foundation, Georgia
Oct. 1-5	**Intervertebral Disc.** NYU, NYC
Oct. 1-5	**Management of Mass Casualties.** Army Med. Service School, Ft. Sam Houston, Texas
Oct. 1-5	**Malignant Neoplasms in Gynecology.** NYU, NYC
Oct. 1-5	**Anesthesiology: Endothracheal & Related Methods.** NYU, NYC
Oct. 1-5	**Thoracic Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 1-7	**Annual Assembly in Otolaryngology.** U. of Illinois, Chicago
Oct. 1-9	**Radiology of the Chest.** Mt. Sinai Hospital, NYC
Oct. 1-12	**Surgical Anatomy & Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 1-13	**Obstetrics, Course I.** Cook County Graduate School of Medicine, Chicago
Oct. 1-15	**Obstetrical & Gynecological Pathology.** New York Polyclinic Hospital, NYC
Oct. 1-15	**Urologic Pathology.** New York Polyclinic Med. School, NYC
Oct. 1-19	**Pain Syndromes: Diagnosis & Treatment by Regional Block.** U. of Penna., Philadelphia
Oct. 1-31	**Clinical Obstetrics, Harvard University.** Boston Lying-in Hosp.
Oct. 1-31	**Clinical Gastroenterology.** New York Polyclinic Med. Sch., NYC
Oct. 1-31	**Course for General Practitioners.** New York Polyclinic Med. School, NYC
Oct. 1-31	**Refraction.** New York Polyclinic Med. School, NYC
Oct. 1-31	**Clinical Proctology.** New York Polyclinic Med. School, NYC
Oct. 1-31	**Diseases of the Chest.** Columbia U., Bellevue Hosp., NYC
Oct. 1-31	**Clinical & Office Obstetrics.** New York Polyclinic Med. School, NYC
Oct. 1-Nov. 12	**Clinical & Cadaver Gynecology.** New York Polyclinic Med. School, NYC
Oct. 3-5	**27th Annual Symposium on Heart Disease, San Francisco Heart Assn.** St. Francis Hotel, San Francisco
Oct. 4-6	**3rd Annual Meeting, Academy of Psychosomatic Medicine.** Hotel Plaza, NYC
Oct. 5-6	**Scientific Session, Nebraska Heart Assn.** Omaha
Oct. 8-9	**Mental Problems of Long Term Illness.** City of Hope, Duarte, Calif.
Oct. 8-9	**Annual Refresher Course, Am. Soc. of Anesthesiologists.** Municipal Auditorium, Kansas City, Missouri
Oct. 8-10	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Oct. 8-12	**42nd Annual Clinical Congress, American College of Surgeons.** Civic Auditorium, San Francisco
Oct. 8-12	**Recent Advances in Cardiovascular Disease, Am. Coll. of Physicians.** Mt. Sinai Hospital, NYC
Oct. 8-12	**Gynecology & Endocrinology.** NYU, NYC
Oct. 8-12	**Internal Medicine, Am. Coll. of Physicians.** Vanderbilt Univ., Nashville
Oct. 8-13	**International Cancer Cytology Congress.** Drake Hotel, Chicago
Oct. 8-19	**Clinical Uses of Radiosotopes.** Cook County Graduate School of Medicine, Chicago
Oct. 8-19	**Urology.** Cook County Graduate School of Medicine, Chicago
Oct. 8-19	**Electrocardiography & Heart Disease: Basic Course.** Cook County Graduate School of Medicine, Chicago
Oct. 9-13	**American Rhinologic Society.** Illinois Masonic Hospital & Palmer House, Chicago
Oct. 9-Dec. 12	**Orthopedics for GP's (several concurrent, part-time courses).** NYU, NYC
Oct. 10	**Thyroid Diseases.** U. of Indiana, Indianapolis
Oct. 10-11	**20th Annual Symposium on Heart Disease.** Los Angeles County Heart Assn.
Oct. 10-Nov. 7	**Surgical Pathology.** Cook County Graduate School of Medicine, Chicago
Oct. 14	**Emergency Procedures.** U. of Texas, Texarkana
Oct. 15-19	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Oct. 15-19	**Medical Aspects of Compensation.** NYU, NYC
Oct. 15-19	**Clinical Neurology, Am. Coll. of Physicians.** Jefferson Medical College, Philadelphia
Oct. 15-19	**T-B & Other Pulmonary Diseases of Childhood.** NYU, NYC
Oct. 15-19	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Oct. 15-19	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 15-19	**Elementary Electrocardiography.** Mt. Sinai Hospital, NYC
Oct. 15-19	**Postgraduate Short Course, Am. Coll. of Chest Physicians.** Knickerbocker Hotel, Chicago
Oct. 15-20	**Acute Neurological Problems in General Practice.** NYU, NYC
Oct. 15-26	**Selected Subjects of Current Significance.** New York Academy of Medicine, NYC
Oct. 15-26	**Dermatology.** Cook County Graduate School of Medicine, Chicago
Oct. 15-26	**Fractures and Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 15-27	**Postgraduate Course, International Coll. of Surgeons.** Cook County Graduate School of Medicine, Chicago
Oct. 15-Nov. 2	**Cerebral Palsy.** Columbia-Presbyterian Med. Center, NYC
Oct. 15-Nov. 9	**General Surgery I, Harvard University.** Mass. General Hosp., Boston
Oct. 15-Nov. 10	**Review of Surgery for Specialists.** NYU, NYC
Oct. 16-17	**Metabolism & Endocrinology.** U. of Calif. Med. Center, San Francisco
Oct. 17	**Annual Fall Refresher, Minnesota Acad. of General Practice.** Prom Ballroom, St. Paul
Oct. 18-20	**Gastroenterology.** Tufts College, Boston
Oct. 18-20	**Annual Postgraduate Course, Am. Coll. of Gastroenterology.** Roosevelt Hotel, NYC
Oct. 18-20	**Technics in General Practice.** U. of Minnesota Center for Continuation Study, Minneapolis
Oct. 19-20	**Seminar in Diabetes Mellitus.** U. of Florida, Gainesville
Oct. 22	**Influence of Nutritional Processes on Aging; Jaundice.** Acad. of Med. of Cleveland & Cuyahoga County, Cleveland
Oct. 22-24	**School Health Conference.** KU Medical Center, Kansas City, Kans.
Oct. 22-24	**Gynecology for General Physicians.** U. of Minnesota Center for Continuation Study, Minneapolis
Oct. 22-25	**Interstate Postgraduate Med. Assn. of North America.** Cleveland
Oct. 22-26	**X-ray Diagnosis in Obstetrics & Gynecology.** NYU, NYC
Oct. 22-26	**Neuromuscular Disabilities.** Orthopedic Hosp., Los Angeles
Oct. 22-26	**Internal Medicine, Am. Coll. of Physicians.** U. of Washington, Seattle
Oct. 22-26	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 22-26	**Advanced Electrocardiography.** Mt. Sinai Hospital, NYC
Oct. 22-26	**Breast & Thyroid Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 22-26	**Functional & Degenerative Diseases of the Heart.** U. of Vermont, Burlington
Oct. 22-27	**Treatment of Fractures & Other Traumatic Conditions.** Harvard University. Mass. General Hospital, Boston
Oct. 22-27	**8th Postgraduate Assembly of the Endocrine Society.** U. of Texas, Houston
Oct. 22-Nov. 2	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago

(Continued on page xxvii)



RESEARCH IN MENTAL RETARDATION

Mental retardation in children is one of the many difficulties that the recently adjourned 84th Congress provided rather a liberal amount of money for investigating. The Office of Education in the Health, Education and Welfare Department has $675,000 available for research projects in mental retardation. In addition, there are funds available from the Children's Bureau of that Department. Of the $4,000,000 appropriated for the Division of Maternal and Child Health, $2,000,000 has been earmarked for special projects. Of the remaining $2,000,000, Iowa will again receive its share, $45,000, of which $15,000 is being allocated to health services for the mentally retarded child.

At the request of Dr. Madelene Donnelly, director of the Division of Maternal and Child Health, officials of state bureaus, heads of private agencies and a number of private citizens who work with or are interested in retarded children met on August 16 to form a committee for the purpose of planning the work which that appropriation will facilitate.

The committee agreed that there is a great deal which can be accomplished through a coordination of the services represented by its members. By exchanging ideas and by cooperating whenever possible, the agency chiefs will be able to avoid duplication of effort, and can expect to work more productively than might otherwise be possible.

Superficially, the retarded child might seem to be almost entirely an educational problem. It should be obvious, however, that teachers cannot be expected, all by themselves, to discover specifically what it is that distinguished such a child from the average, or what may have caused him to be different. Those questions must be answered by physicians, if answers are to be found at all.

Physicians are most likely to be concerned about the large group of youngsters for whom retardation is a complication of severe physical disability. In this state, the State Board of Regents' Hospital-School for Severely Handicapped Children, at Iowa City, accepts patients who have cerebral palsy, muscular dystrophy, spina bifida, arthritis, poliomyelitis after-effects, or other severely handicapping conditions, *provided that they are not also feeble minded.* The state schools for the blind and dead admit children only if they are adjudged capable of doing school work normally well.

Because of the additional funds now available, the crippled children's services rendered at the State University of Iowa Hospitals, in Iowa City, under the direction of Dr. Cogle may be greatly expanded.

Because a new start is being made, there is a preliminary job to be disposed of. A system must be set up for securing usable reports upon the numbers of mentally retarded children in our population, the places where they live and the degree of mental retardation in each case. That isn't so simple a matter as it might seem to be, for the standards must first be devised and must be generally accepted before reports on incidence and severity can be meaningful. The nature and extent of the children's other disabilities, if any, will also have to be ascertained, of course.

Previous research has indicated that retarded children differ from normal ones in the way in which they learn, but the nature and extent of that difference have never been thoroughly explored, and when they have been discovered, educators will be faced with the task of finding ways of utilizing them efficiently. Eventually, it is to be hoped, backward children can be trained more quickly to the limit of their capacities, for only then will it be possible for institutions to accept them for rehabilitition along with their normally gifted fellows.

Thus, though physicians will certainly be called upon to discover the etiology of mental deficiency, or at least to attempt to do so, their concern for the success of these investigations will not be entirely academic. In particular, they will want to give aid and encouragement to the people who are doing other parts of the job, so that cripples no longer will need to be turned away from facilities which, but for their mental retardation, might help them live happily and more or less independently.

Plan to attend the Annual Meeting of the Iowa State Medical Society, April 28-May 1, 1957, in Des Moines.

ANNUAL CONFERENCE OF PRESIDENTS AND SECRETARIES

The ISMS Annual Conference of Presidents and Secretaries has been definitely scheduled for Sunday, October 21, at the Savery Hotel, Des Moines. County society officers are urged to take note of that date and to reserve the day for attendance at this important meeting.

An outstanding program is being arranged. Subjects that will be covered include national and state legislation, public relations, mental health,

rural health, prepaid insurance, Blue Shield, the status of the hospital-physician lawsuit, and a general report on the business of the State Society.

It is probable that in addition to county society presidents and secretaries, invitations will be issued to deputy councilors, Blue Shield liaison physicians, county public relations chairmen and legislative contact men.

TOBACCO-CANCER RELATIONSHIP STILL UNPROVED

The recently announced failure of British scientists to induce cancer in laboratory animals with tobacco-smoke derivatives lends support to the contention that the search for the cause or causes of lung cancer must be broadened and intensified. In Great Britain, no cancers have so far been produced by painting the skins of mice with cigarette tar; by injecting cigarette tar under the skins of rats and into the bronchi of hamsters; by injecting tars made from cigarette paper into animals; or by introducing cigarette tars into the esophagi of mice.

In more or less parallel but quite independent projects, American researchers, provided to date with upwards of $1,200,000 by the Tobacco Industry Research Committee, have likewise failed to demonstrate any connection between cigarette smoking and the development of human ailments. Dr. Clarence Cook Little, president of the Jackson Memorial Laboratory, Bar Harbor, Maine, and scientific director of the tobacco-cancer investigations in this country, has said, "Like any other human activity, the use of tobacco affects some individuals in different ways. The same may be said, of course, of almost anything else we come into contact with, including the food we eat. Preliminary study indicates that the physical, emotional and mental characteristics of people who become smokers may be of more significance than has so far been recognized."

The 55 or more scientists who are using TIRC funds include Dr. Emory D. Warner, professor of pathology at SUI, who is conducting a pathologic-anatomic study of cellular changes in the human bronchi. Dr. Warner is, of course, by no means the only one of them who is working on lung-tissue investigations, and in addition there are specialists in cardiovascular and coronary research exploring the relationships of nicotine intake to vascular and cardiac functions, and scientists in the field of tissue culture who are trying to improve the specimens on which the others must work.

From all appearances, the search is being conducted altogether fairly, no pressure being put upon the recipients of grants to produce findings that support the donor's point of view. For example, they are at liberty to publish their findings whenever and wherever they please. So far, no reports have appeared in print, but we are told that a few may be expected shortly.

Since cigarettes have been accused of partial responsibility for the two sorts of diseases that are currently the principal causes of death, the research that is being paid for by the tobacco companies is virtually certain to add important segments to our knowledge in areas where it can do the greatest good. And in addition, some of the money is being paid to medical schools for the use of their facilities, and to medical students for between-term work, thus helping to subsidize medical education and research in general.

UNSUSPECTED SPONDYLITIS IN CHILDREN

Barkin drew attention to rather unusual x-ray findings of fusion of the apophyseal joints in the cervical spines of juvenile patients with peripheral rheumatoid arthritis, in an address he gave at the June, 1954, meeting of the American Rheumatism Association. Subsequently, Freyberg, at the Hospital for Special Surgery in New York, and McCoy, at the University Hospital in Columbus, Ohio, have investigated the problem further.

It has been the common impression that the occurrence of spondylitis in children was a relatively rare phenomenon, but when McCoy reviewed 23 of his rheumatoid arthritis patients, he was surprised to discover that 13 of them exhibited fusion or spondylitis of the cervical vertebrae, commencing between C2 and C3 and extending inferiorly.

Roentgenographically, five of those 13 children showed changes of the sacro-iliac joint that were indistinguishable from the changes that are found in spondylitis among adults. No unusual sex variation was found, and the degree of involvement appeared to have no correlation either with the severity of peripheral joint involvement or with the length of time that the patient had suffered from polyarthritis. Physical findings were present in those children in whom spondylitis had been discovered by x-ray, but no one had looked for them.

Certain conclusions can be drawn regarding this condition:

1. All children with peripheral joint involvement should be given the benefit of cervical spine x-ray.
2. Frequent repeat films should be made.
3. The initial site of involvement is between C2 and C3, and then progressive changes occur in additional cervical vertebrae. It is not known whether the sacro-iliac involvement is a similar process or whether the two are related.
4. This condition is never an isolated finding, but is always associated with active peripheral rheumatoid arthritis.
5. Fusion of cervical vertebrae must not be regarded as necessarily a congenital anomaly in patients suffering from juvenile rheumatoid arthritis.

Survey of Office Nurses

In the January, 1956, issue of its BULLETIN, the Iowa State Nurses Association summarized the answers to a questionnaire which it had sent to office nurses throughout Iowa. The women to whom it was sent included non-members as well as members of the Nurses Association, but did not include medical secretaries or other office personnel. Out of 453, there were 174 who replied. The following are tabulations of the results. In most instances, of course, the total is somewhat less than 174, since some respondents failed to answer some questions, or cited special circumstances that made their replies unusable.

SIZE OF COMMUNITY

Under 5,000 people	20
5,000—10,000	13
10,000—25,000	24
25,000—50,000	32
Over 50,000	84

AGE OF NURSE

20—30 years	66
30—40	50
40—50	33
Over 50	26

PROFESSIONAL EDUCATION

Nursing school only	149
Nursing school and one year of college	10
Nursing school and two years of college	9
Nursing school and bachelor's degree	7
Postgraduate clinical course	12
Other	3

NURSING DUTIES IN OFFICE

Injections and Treatments	175
Assist, minor surgery	160
Physical Therapy	57
Anesthetics	18

NURSING DUTIES OUT OF OFFICE

Home visit	34
Surgery scrub	26
Hospital visit	22
Anesthetics	2
Obstetrical scrub	2

OVERTIME COMPENSATION

None	113
Straight time pay	20
Straight time pay or time off, at employee's option	14
Compensatory time off	7
Time-and-a-half pay	2

HOURS PER WEEK

32½ hours (average)	2
40	64
42 (average)	5
44	62
48	17
"Till finished"	6

MARITAL STATUS

Single	74
Married	79
Widowed, divorced or separated	22

OTHER DUTIES

	Entirely	*Occasionally*
Bookkeeping	37	59
Receptionist	43	76
Correspondence	40	53
Housekeeping	39	67

DAYS OFF PER WEEK, INCLUDING SUNDAY

1 day	8
1½ days	101
2 days	58

SALARIES

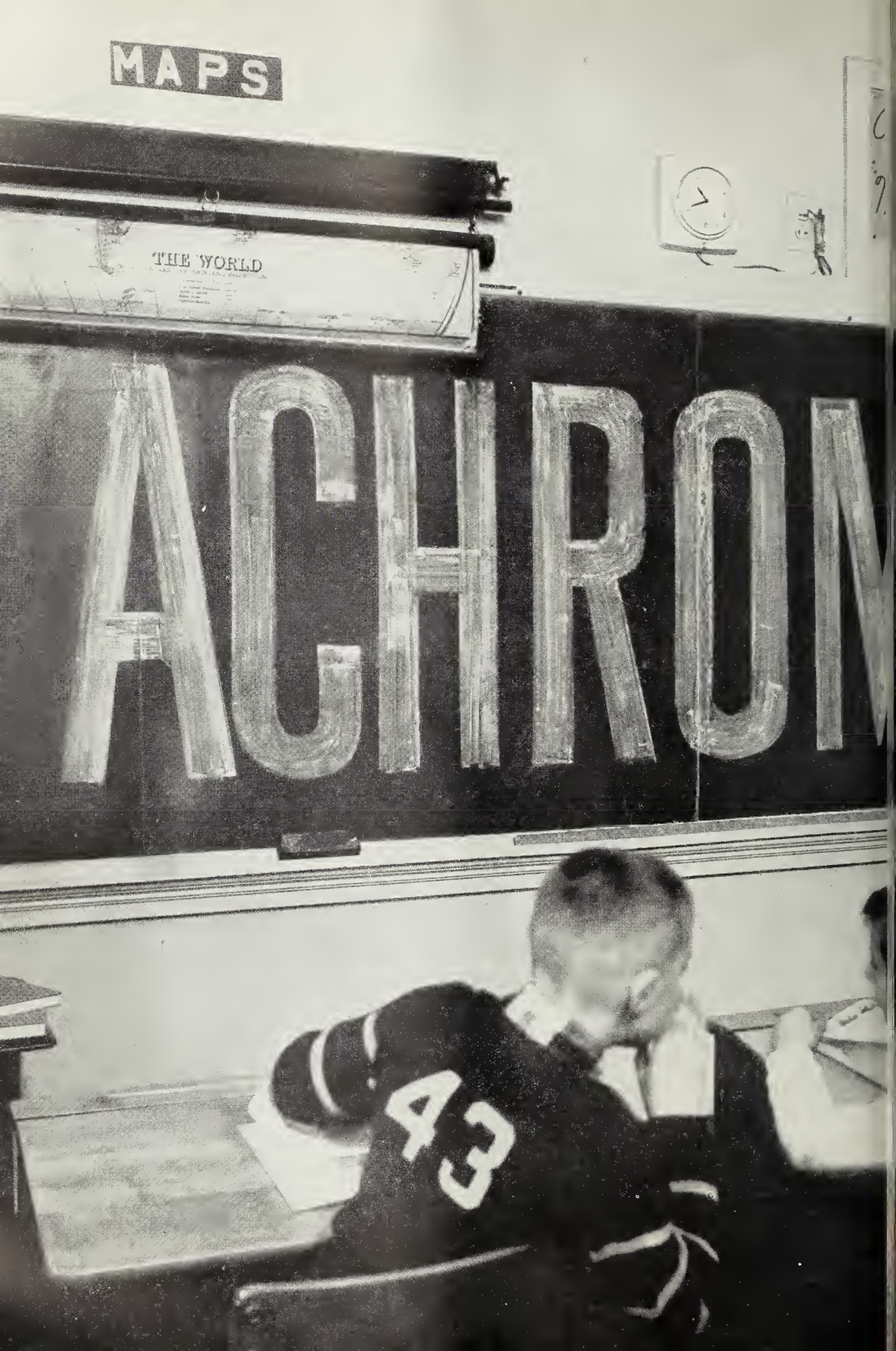
Monthly Salary	*Population of Town* Under 5,000	5,000-10,000	10,000-25,000	25,000-50,000	Over 50,000
Less than $200	0	1	0	1	0
$210—$219	8	3	0	3	5
$220—$239	0	5	6	3	13
$240—$259	7	4	7	7	25
$260—$279	1	1	3	10	11
$280—$299	1	0	2	5	6
$300—$324	0	0	3	1	9
$325—$349	0	0	1	1	5
$350—$399	0	0	2	1	5
Over $400	0	0	0	0	3
Median	$230	$232	$257	$264	$258.40

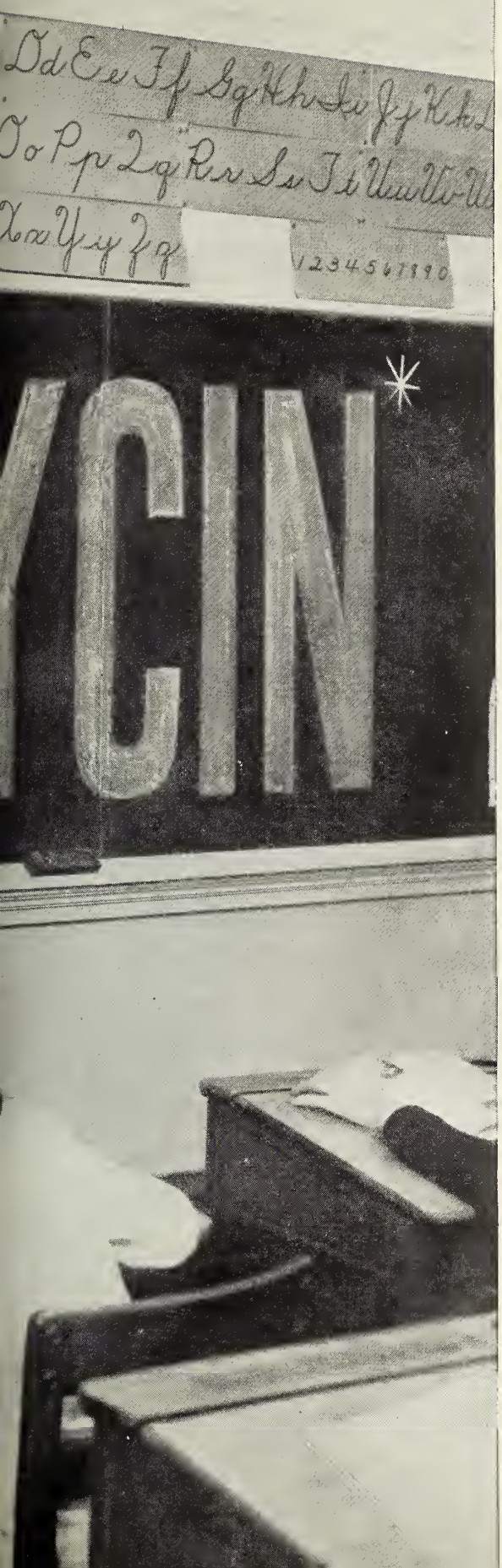
NURSING SERVICE EXPERIMENT AT SUI

The State University of Iowa received a $100,000 grant from U.S.P.H.S., early in August, for an experiment designed to test the traditional theory that a patient's welfare is improved when the number of nurses available for service to him is increased.

At least four of the University's colleges and several of its services, as well as University Hospitals, will have shares in the study. The first phase will involve the nursing, engineering, medicine, psychology, mathematics, statistical service, sociology and administrative staffs at the school. The grant will be administered by Dean Myrtle Kitchell Adelotte, of the College of Nursing.

The complete study, which will be conducted in two phases, will attempt to determine which observable acts of a nurse affect a patient's welfare; whether a nurse devotes more time to these acts when additional nurses are provided in a given situation; and whether a patient's welfare is improved when more time is devoted to these acts. The findings, Dean Kitchell says, can be translated into educational programs of many types for schools of nursing, resulting ultimately in better care for the patient.


MAPS
THE WORLD
ACHRON
43



ACHROMYCIN*

Tetracycline *Lederle*

in the treatment of

respiratory infections

January and his associates[1] have written on the use of tetracycline (ACHROMYCIN) to treat 118 patients having various infections, most of them respiratory, including acute pharyngitis and tonsillitis, otitis media, sinusitis, acute and chronic bronchitis, asthmatic bronchitis, bronchiectasis, bronchial pneumonia, and lobar pneumonia. Response was judged good or satisfactory in more than 84% of the total cases.

Each month there are more and more reports like this in the literature, documenting the great worth and versatility of ACHROMYCIN. This antibiotic is unsurpassed in range of effectiveness. It provides rapid penetration, prompt control. Side effects, if any, are usually negligible.

No matter what your field or specialty, ACHROMYCIN can be of service to you. For your convenience and the patient's comfort, Lederle offers a *full* line of dosage forms, including

ACHROMYCIN SF

ACHROMYCIN with STRESS FORMULA VITAMINS. Attacks the infection—defends the patient—hastens normal recovery. For severe or prolonged illness. Stress formula as suggested by the National Research Council. Offered in Capsules of 250 mg. and in an Oral Suspension, 125 mg. per 5 cc. teaspoonful.



For more rapid and complete absorption. Offered only by Lederle!

[1]January, H. L. et al: Clinical experience with tetracycline. *Antibiotics Annual* 1954-55, p. 625.

Lederle

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*REG. U. S. PAT. OFF.

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President's Page

The ISMS Group Accident and Sickness Disability Insurance Program has now been in effect for about one year. It was adopted by the House of Delegates after a two-year study by its Committee on Insurance, under the chairmanship of Dr. George Young. It was planned to afford the broadest possible protection and maximum security at the lowest possible cost. About 55 per cent of the eligible members of the Society have enrolled, and the group nature of the plan is providing them coverage at a savings of approximately 40 per cent for each policyholder over comparable insurance purchased individually.

New members joining the Society have six months in which to enroll without furnishing evidence of insurabilty, and members returning from military service have 40 days in which to secure reinstatement without taking a physical examination. All other members not presently insured may enroll for coverage at any time, but their applications are now subject to acceptance by the insurance company.

The Basic Plan can be renewed to age 70, regardless of the doctor's physical condition. Extended Coverage, when combined with the Basic Plan, provides, among other things: lifetime accident benefits from the first day of disability, and seven year non-confining sickness benefits.

The Des Moines agency which administers the plan, Holmes, Prouty, Murphy & May, Inc., will be glad to answer inquiries from members of the Society, and to furnish details, including the manner in which claims should be filed. Each issue of the JOURNAL contains some of that firm's advertising.

This program that the Society has set up provides its members an opportunity to secure long-term insurance at exceptionally reasonable rates. Thus it merits their investigation.

Wendell Downing, M.D.

President

THE DOCTOR'S BUSINESS



Planning Your Office—III

MILLARD K. MILLS
WATERLOO

No attempt is being made in this series of articles to take into account the needs of specialists, such as radiologists, for their problems are unique and require special attention.

The size of the general practitioner's x-ray room will naturally depend upon the size of his equipment. If you have no more than the minimum, a fluoroscope, a room 6′ x 8′ will be adequate. For a 100 ma. unit, the standard 8′ x 10′ or 8′ x 12′ room is sufficient. The larger your equipment, of course, the more space you will have to provide for it.

The position of your x-ray room is important. Although for protection you will provide lead-lined, concrete or marble-covered walls (and in some cases ceiling and floor), it is often desirable to have the x-ray room along the outside of your building. The rays can then be directed toward the outdoors.

With the average x-ray equipment, a dark room 4′ x 5′ is quite adequate. A dressing room is almost a "must" wherever much x-ray work is done. If you cannot provide a separate 4′ x 5′ or 4′ x 6′ room with a chair and mirror, at least have a curtain that can be pulled so as to seclude a corner of your x-ray room at intervals to give your patients a degree of privacy in dressing and undressing.

PLUMBING

Generally, it is desirable to have a lavatory near the x-ray room. Frequently one can conveniently and economically arrange to have the dark room and the lavatory side by side at one end of the x-ray room, with a "wet" wall (i.e., one containing water-supply and drain pipes) separating them. Furthermore, if you arrange to have your laboratory just beyond the dark room and the lavatory, perhaps with doors opening from the lavatory into both the x-ray room and the laboratory, you can cut another corner, so far as expense is concerned, and achieve a maximally convenient arrangement.

Some doctors seem to think it necessary to have several lavatories in their offices. Rather, it would seem that in a solo practitioner's suite, just one should suffice for both patients and staff. A 4′ x 5′ room is large enough for a sink and stool, and it is seldom desirable to have a much larger one. Though it might be more convenient for the waiting patients if it adjoined the reception room, we don't recommend such an arrangement.

If you have a separate building, you will have to provide space for heating and air-conditioning units. If the building has a basement, the problem is solved. If not, an 8′ x 10′ room is usually adequate. Besides serving its primary purpose, it will give you some space for storage. And, incidentally, you will want to utilize many otherwise useless corners or alcoves for storage elsewhere, simply by building some shelves in them and, perhaps, installing a folding or sliding door in front of each.

HALLWAYS

The most economical building that can be constructed is a rectangular one, and it is probably the most convenient sort for the doctor. A center hall, with rooms ranged on either side, condenses his working space and saves his time and engery. But since halls are more or less waste space, they should be made neither longer nor wider than necessary. A width of four feet is enough. In addition to the hall that connects the reception room and business office with the examining rooms, there must also be a transverse one, in most instances, so as to make the side door as useful as possible. The doctor will want to enter and leave without going through the reception room, and if the route to the side door takes them past the business office, it will often be desirable to let patients leave that way.

Next month we shall present a suggested floor plan, showing one basic scheme for meeting the requirements of the average solo practitioner. Naturally, certain specialists will have diverse requirements, but the general principles can be used to advantage in planning a new suite or remodeling an old one in most instances.

Mr. Mills is general manager of Professional Management.

Iowa Academy of General Practice

INDEPENDENCE

As doctors, we must be ever cognizant of the fact that not only we ourselves but all other physicians are judged by our actions and remarks.

Many people pass judgment on the medical profession after having had no more than a single contact with one individual doctor. For example, a doctor has refused to make a house call, and has not taken time to explain his refusal or to refer the patient to a source of help. Immediately, the whole profession is criticized. Or one physician makes a casual remark to a patient about another doctor, and the result is a misunderstanding or even a lawsuit.

Today, the general public rushes to the hospital at the slightest provocation, expecting immediate treatment of various conditions. With the present shortage of interns, some hospitals are unable to provide all of the emergency care that is demanded of them, and the public consequently gets the impression that medical care is difficult to get. One could go on and on citing instances in which the public gets the impression that the sick aren't getting proper attention.

We must see to it that patients are promptly cared for, and we must also make sure that neither they nor their friends and relatives have any cause for complaint. In particular, we must see that proper emergency arrangements are set up in the community and in the hospital. We must be careful about what we say regarding others.

We must remember that whenever we doctors fail to give the service that is asked of us, we are opening the door to government medicine.

ANNUAL MEETING AND POSTGRADUATE COURSE

In several recent issues of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, the Iowa Chapter of the American Academy of General Practice has informed the doctors of the state about its Annual Meeting and Scientific Postgraduate Course, to be held at the Savery Hotel, in Des Moines, on September 13 and 14, 1956. A complete program appeared in the August issue.

This program has considerable appeal to all generalists, and we feel that many of our specialist friends will want to attend at least that part of the meeting that appeals to them. Since this program is designed as a postgraduate course, Category I credit of 10 hours is given to each member of the Academy for his attendance. Though the course is free to Academy members, it is necessary that a fee of $5.00 be charged for nonmembers.

Doctors' wives have been given a special invitation to attend a special program which has been arranged for them. The list of events is published on page 523 of this issue of the JOURNAL, in the Woman's Auxiliary News section.

Those desiring hotel reservations are asked to write directly to the Hotel Savery, stating their intention of attending the IAGP meeting. The Hotel has kindly set aside a block of rooms for those of our members and guests who desire accommodations.

The officers and members of the Board of Directors look forward to meeting colleagues from throughout the state.

THE NEW AAGP HEADQUARTERS

The American Academy of General Practice dedicated its new headquarters building in Kansas City on September 1. The dedication address was given by Dr. Dwight H. Murray, president of the AMA and an Academy member. The building was designed to meet the needs of the Academy, each department having quarters arranged to fit its special requirements.

The Labor Day weekend was filled with activities for the whole organization. The Board of Directors held a regular meeting. Several other groups met to discuss the business and problems of their special assignments. A State Officers' Conference, under the leadership of Dr. Harry Marchmount-Robinson, of Chicago, considered individual and collective state problems. Discussions were participated in by representatives of state chapters from throughout the United States. Also, presentations and discussions related to the Academy's three insurance plans took place.

Those who attended felt well repaid, and all of them learned about the Academy's business operations and about the methods that are employed in transacting them.

MINNESOTA AGP REFRESHER COURSE

The Minnesota Academy of General Practice will conduct its Sixth Annual Fall Refresher at the Prom Ballroom, in St. Paul, from 8:30 to 5:30 on Wednesday, October 17. Attending Academy members will receive credit for seven hours of formal postgraduate study (Category I).

A wide range of medical subjects will be covered by the 14 lectures. The luncheon speaker will be Claude J. Beck, M.D., of Cleveland. Also appearing on the program will be Michael J. Wohl, M.D., of Philadelphia, and James L. Dennis, M.D., of Oakland.

Luncheon is included in the registration fee of $10. For further information, write to James A. Blake, M.D., 15 Ninth Avenue South, Hopkins, Minnesota.

On the succeeding two days, October 18-19, the University of Minnesota offers its annual short course "Techniques in General Practice," on the Minneapolis campus, and on the following Monday, Tuesday and Wednesday, October 22-24, the University of Minnesota's "Gynecology for General Practitioners" will be presented there.

MENTAL ILLNESS

PROTECTION OF MENTAL HEALTH THROUGH EARLY RECOGNITION AND TREATMENT OF READING DISABILITIES

From 10 to 15 per cent of the school population suffers from reading disabilities. Surveys of juvenile delinquents indicate that from 60 to 75 per cent of such youngsters are markedly retarded in reading ability.[1] Reading disabilities may be considered significant if the child is 25 per cent or more retarded in his skills, on the basis of his mental age. For example, a 10-year-old boy with a mental age of 8 yrs. (I.Q. 80) is 33 per cent retarded if he can read only at the second grade level.[2] The condition is much more common in boys than in girls. Estimates of boy-girl incidence ratios range from 3/2 to 9/1.

The many theories as to cause can be grouped into three major categories: (1) organ dysfunction; (2) ineffective teaching programs; and (3) personal psychological problems specific to the individual child. Research has gradually clarified the situation. Organ dysfunction such as would arise from eye or brain disease is now rather infrequently implicated. Teaching programs have been improved so that poor instruction is less frequently a major factor, noisy and irresponsible allegations to the contrary notwithstanding.[3]

Careful individual studies by psychiatrists have resulted in the publication of extensive material on the subject of the influence of psychological factors on reading disability. As a result, there is now a large consensus that most reading disabilities are symptomatic of unhealthy personality integration. Reading disabilities are usually found to be only one of several symptoms indicative of an underlying neurosis, personality trait disorder, incipient psychosis or some other disturbance in personality growth.

Studies of incidence rates in different clinical settings reveal much higher rates among children from very disturbed home situations. Reading disability is therefore an index of psychopathology in an individual and in his family.

Unfortunately, in our culture a reading disability, regardless of its basic etiology, is in itself the potential cause for serious later maladjustment. The retarded reader develops feelings of inadequacy, shame, anger and guilt. He usually reacts to these feelings by withdrawal from constructive social living and/or becomes defiant and aggressive.

The physician is in an excellent position to make an important contribution to the prevention of mental illness and delinquency when he inquires about the child's school progress. He can use his influence to see that the necessary special diagnostic procedures are carried out by qualified experts. As a school board member, he can press for the inclusion of special remedial instruction in the schools. Early recognition of a reading disability and the provision of a special tutor may be all that is required. In many instances, however, a referral to a psychiatrist may be indicated. The prognosis will depend on many factors, including the age, sex and I.Q. of the child, the severity of the disability, the basic etiology, the school setting and the extensiveness of family psychopathology.

REFERENCES

1. Margolin, J. B., Roman, M., and Harari, C.: Reading disabilities in delinquent child: microcosm of psychosocial pathology. Am. J. Orthopsychiatry, 25:25-35, (Jan.) 1955.
2. Fabian, A. A.: Reading disabilities; index of pathology. Am. J. Orthopsychiatry, 25:319-329, (Apr.) 1955.
3. Flesch, Rudolph: Why Johnny Can't Read and What You Can Do About It. New York, Harper Brothers, 1955.

The Subcommittee on Mental Health wishes to know whether or not the membership of the Society enjoy reading the MENTAL ILLNESS articles, and have found them useful.

Please write the Editor of the JOURNAL, telling him your opinion of the series, and if you would like to have it continued, suggest some of the topics that you think should be covered in future papers.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

SILAGE GAS POISONING

About six or seven years ago, it was first noted that under certain circumstances a brownish or yellowish gas was present during and after silo filling. This gas killed livestock and small animals in the vicinity of the silo.

In the last year or so, a number of human cases of silage gas poisoning have been reported. Several of the patients have died. The problem seems to exist in most midwestern states, and it is being studied by health departments and agricultural research workers. Cases have been reported recently from Minnesota, Wisconsin and Missouri.

Because all of the facts are not known, it is possible to indicate here only what seems to be the general pattern. Most of the human cases have had their inception during or immediately after the filling of a silo. The forage involved is usually corn, although clover was involved in one reported case. The forage was relatively dry, and in some instances water had been added during the silo filling. Drouth and high-nitrogen fertilization resulting in forage that has a relatively high nitrogen content are suspected of being contributing causes of the gas formation.

In concentrations as low as 25-100 parts per million, the gas is odorless and colorless. As the concentration increases, its brownish-yellow color becomes visible, and it causes a burning, choking sensation as it irritates mucous membranes. The estimated maximum safe concentration is 25 parts per million.

The following case summaries are typical of "silo-filler's disease," and indicate that the illness may be marked either by sudden onset and death, or by delayed onset.

A Missouri farmer entered a silo in which silage prepared the previous day had settled eight to ten feet from the top. He intended to put more of the silo doors in place, in preparation for the resumption of filling operations. The blower was started by another workman, a boy, for the purpose of dispelling the irritating brown gas that pervaded the area. The man who had entered the silo found that the silage had settled farther than he had anticipated, and he had difficulty in getting out. After about 10 or 15 minutes, a door was removed, and the man was taken out in a state of deep anesthesia. The boy who had been exposed also lost consciousness. Both regained consciousness later, and though they had severe headaches, they resumed their silo-filling. At 2:00 p.m., the man collapsed and was hospitalized. He died 17 hours after he had entered the silo. The boy, who had come to visit him in the hospital, collapsed there and was hospitalized for several days.

Reports of five cases with three deaths in Minnesota include histories of exposure to oxides of nitrogen in silos from one to three days before the onset of illness. Postmortem studies in three cases have indicated bronchiolitis with obliterative exudate, in some cases hemorrhagic.

Early in July, an Iowa boy climbed into a silo that had been filled the night before with grass silage containing some alfalfa. Hearing his cries for help, another boy attempted to rescue him, but found that more help was needed. The first boy was dead when the physician arrived. No postmortem examination was made. The cause of death could have been either inhalation of nitrogen or simple asphyxiation from excess carbon dioxide.

The following are some precautions that farmers must be urged to take:

1. Consider the silo as possibly dangerous for seven to ten days after filling. Remember that either oxides of nitrogen or just plain carbon dioxide can accumulate in a silo. Carbon dioxide in large amounts can cause death by simple asphyxiation.

2. While filling a silo, be sure that the distributor pipes are kept as close to the silage level as possible. After filling the silo, leave a section or two of distribution pipe attached, if possible.

3. Do not work in a silo, climb a ladderway or allow anyone else to do so, if a brownish or yellowish gas can be seen, or if there is an irritating odor.

4. If the silo *must* be entered after it has been wholly or partially filled, run the blower about half an hour before starting to climb the ladderway.

5. Fence off the base of the silo or otherwise prevent children and animals from entering the area immediately adjoining the silo.

Plan to Attend the
ISMS ANNUAL MEETING
April 28-May 1, 1957

NO MORE RESTRICTIONS ON USE OF SALK VACCINE

During July, the allocations of poliomyelitis vaccine sent to Iowa were more than adequate to meet the demand for immunizations from persons 0-19 years of age and pregnant women. In consequence, physicians from all areas in the state requested that the age limit for eligibility be removed.

Since the supply of vaccine has been adequate to meet Iowa's needs and since the supply promises to increase, the State Department of Health, after conference with all members of the State Board of Health and of the Iowa State Medical Society's Subcommittee on Poliomyelitis, removed all priorities as of August 1, 1956. That means that anyone in Iowa, regardless of age, is eligible for any injection—first, second or third—of the poliomyelitis vaccine.

It was also agreed that since the supply of vaccine was meeting or possibly exceeding demand, an educational program is necessary. At an April meeting, the aforementioned groups had approved the National Foundation for Infantile Paralysis's educational material, but had requested that its distribution by delayed until such time as demand for the vaccine did not exceed the supply. That educational program regarding the advantages of the Salk vaccine was ordered started on August 1.

Other states and territories are also either modifying or removing age-eligibility requirements. California and Washington removed all age limits in July. Oregon increased the age eligibility through 29, and Hawaii through age 39.

The Iowa State Department of Health will continue its program of purchasing and distributing vaccine to counties for use in medical hardship cases. Amounts of poliomyelitis vaccine allocated to Iowa are steadily increasing. In every county in the state, we must get busy if we are to take full advantage of all available poliomyelitis vaccine.

VOLUNTARY HEALTH INSURANCE KEEPS GROWING

Benefit payments under voluntary health insurance programs are running 20 per cent higher this year than in 1955, according to a report issued recently by the Health Insurance Council. The increase in benefit payments reflects both the progress made by the American people in bringing their health insurance protection to more nearly adequate levels, and the continued spread in ownership.

As of July 31, the Council estimates, some 110,000,000 people, an all-time high, were covered by hospital insurance, 94,000,000 had surgical protection, 58,000,000 had policies covering regular medical expenses, and 7,000,000 had insurance against major medical expenses. The figures cover health insurance programs conducted by insurance companies, Blue Cross-Blue Shield plans, and other health-care schemes.

During the year 1955, the number of people with hospital insurance increased 6.1 per cent; those with surgical insurance rose 7.0 per cent; and those with regular medical expense protection rose 17.5 per cent. Major medical expense insurance was bought by 138 per cent more people than in 1954.

OMAHA MID-WEST CLINICAL SOCIETY

Eleven guest speakers of national repute will be presented during the 24th Annual Assembly of the Omaha Mid-West Clinical Society, which is to be held at the Hotel Fontanelle, in Omaha, October 29 through November 1. Their names, specialties and titles can be found in a half-page advertisement in this issue of the JOURNAL.

In addition to formal lectures, there will be round-table discussions, luncheons and dinners, medical motion pictures, and scientific and technical exhibits. All physicians are invited to attend.

MORBIDITY REPORT FOR MONTH OF JULY

Disease	*July 1956*	*June 1956*	*July 1955*	*Most Cases Reported from these counties*
Diphtheria	0	1	0	
Scarlet Fever ..	14	42	27	Polk 11, Hawk 3
Typhoid Fever.	5	14	4	Decatur 1, Mills 1, Pottawattamie 1, Wapello 1, Webster 1
Smallpox	0	0	0	
Measles	330	2236	572	Linn, Scott, Floyd, Boone, Dubuque, Mills, Story
Whooping Cough	26	59	59	Buena Vista, Polk, Johnson, Des Moines
Brucellosis ..	15	17	27	Clay 3, Johnson 2, others scattered 1 to a county
Chickenpox ...	77	442	98	Dubuque, Scott, Story, Floyd, Cerro Gordo
Meningococcus Meningitis ..	0	2	0	
Mumps	107	191	205	Dubuque, Scott, Linn, Polk, Howard, Des Moines
Poliomyelitis ..	50	9	86	Cerro Gordo 15, Polk 9, Pottawattamie 2, Black Hawk 2, Dubuque 2, Floyd 2, Story 2, Woodbury 2, others scattered 1 to a county
Inf. Hepatitis .	22	43	37	Benton, Scott, Clayton, Allamakee, Des Moines
Rabies in Animals	14	17	18	Scott 3, Des Moines 2, Henry 2, Johnson 1, Jones 1, Linn 1, Muscatine 1, Poweshiek 1, Sac 1, Washington 1
Malaria	0	1	0	
Psittacosis	0	0	2	
Q Fever	0	0	0	
Tuberculosis ..	37	75	44	For the State
Syphillis	88	96	119	For the State
Gonorrhea	54	80	71	For the State
Histoplasmosis .	2	2	1	Taylor 1, Madison 1
Encephalitis ..	1	2	0	Calhoun 1
Salmonellosis .	4	1	0	Wapello 1, Polk 1, Tama 1, Johnson 1
Meningitis (unspec.) ...	2	1	2	Linn 1, Buena Vista 1
Aseptic Meningitis ..	5	0	0	Polk 1, Story 3, Scott 1

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

SURGERY OF THE HAND, THIRD EDITION, by *Sterling Bunnell*, M.D. (Philadelphia, J. B. Lippincott Company, 1956. $22.50).

OF WATER, SALT AND LIFE: AN ATLAS OF FLUID AND ELECTROLYTE BALANCE IN HEALTH AND DISEASE. (Milwaukee, Lakeside Laboratories, 1956. $7.50).

EVERY OTHER BED, by *Mike Gorman*, Executive Director of the National Mental Health Committee. (Cleveland and New York, World Publishing Company, 1956. $4.00).

DIAGNOSIS AND TREATMENT OF PERIPHERAL VASCULAR DISORDERS, by *David I. Abramson*, M.D. (New York, Paul B. Hoeber, Inc., 1956. $13.50).

BOOK REVIEWS

ELECTROCARDIOGRAPHY: FUNDAMENTALS & CLINICAL APPLICATION, SECOND EDITION, by *Louis Wolff*, M.D. (Philadelphia, W. B. Saunders Co., 1956. $7.00).

Dr. Wolff is chief of the electrocardiographic laboratory at Beth Israel Hospital and an assistant clinical professor of medicine at the Harvard Medical School.

The second edition of his well-known exposition of electrocardiography has been revised to utilize new concepts based on vectorcardiography.

Sections on the basic principles of electrocardiography and on clinical applications have been supplemented by a third section on the cardiac arrhythmias. The effects of digitalis and quinidine are discussed. The effects of electrolyte disturbances are rather summarily dealt with.

The volume is abundantly illustrated, but the vertical time lines in many of the electrocardiograms are not clearly reproduced.—*Herman J. Smith*, M.D.

LYSERGIC ACID DIETHYLAMIDE AND MESCALINE IN EXPERIMENTAL PSYCHIATRY, ed. by *Louis Cholden*, M.D. (New York, Grune & Stratton, Inc., 1956. $3.00).

This 81-page book deals with the effects of the drugs on the psychic activity of human beings. Pharmacology, routes of administration, biochemical action and effects upon the central nervous system are discussed by Drs. Paul Hoch, Max Rinkel, Charles Savage and various other well-known men. There are chapters on the clinical uses (if any) of LSD, and a chapter by Aldous Huxley on the experimental use of mescaline.

It is, I believe, appropriate at this point for me to indicate that the use of drugs for the purpose of observing human behavior is hardly a new concept. Alcohol, hyoscine, hashish and other drugs were used in this fashion both in the ancient and in the recent past.

The development of LSD-25 is a significant milestone, but in general, the type of reaction that lysergic acid derivatives produce has been known for a great many years. Before the introduction of LSD, mescaline was the drug being studied. It is worthy of note that in the May, 1936, issue of the JOURNAL OF MENTAL SCIENCE, Eric Guttmann published an original article entitled "Artificial Psychoses Produced by Mescaline" in which he discussed many of the "recently discovered" phenomena and recommended its further use in psychologic research.

The history of mescaline is interesting. The American Indians apparently have been accustomed to use it in their rituals for many centuries. On an expedition to Central America in 1886, Lewin, a pharmacologist, heard of a peculiar intoxicating substance that the natives extracted from a small cactus from which "cactus buttons" originate (mescal buttons), and which they had named *peyotl*. The substance, identified as an anhalonium, was subsequently given the scientific designation *anhalonium Lewinii*.

The peyotl cult spread to the North American Indian tribes, among whom it can still be found. The publications of Lewin and of his contemporaries Beringer and Rouhier give much interesting historical, ethnological, botanical and pharmacological information. The intoxications, as described, are suggestive of the effects of LSD today. These and similar articles demonstrate that the possibilities for psychic research with mescaline and similar substances were foreseen 20 or more years ago.

It would appear that the synthesis of LSD is an interesting chemical experiment, but up to this point it is little more.—*Howard V. Turner*, M.D.

PEDIATRIC X-RAY DIAGNOSIS, THIRD EDITION, by *John Caffey*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $28.00).

The present volume is the third edition of a book originally issued in 1945. The author is a pediatrician who became so proficient in radiologic diagnosis in his field that many of his original studies are now classics.

In the preface, he states: "We have striven to include the most important new information which is actually useful in the diagnosis of disease and in the treatment of patients. Some of the more elaborate new technics have intentionally been omitted because they require so much space; these include opaque angiocardiography, cardiac catheterization, planog-

raphy, opaque cerebral angiography and opaque myelography."

Each of the six sections starts with an exhaustive description of the normal, and of near-normal variations. In a volume dealing with radiology, this quite often is merely a customary or even a perfunctory inclusion, but in children's radiology, these introductions assume an importance as great as that of the presentations of abnormalities, and in my opinion prominence given them is completely justified.

The illustrations are profuse, excellent and so well described that they alone would constitute an outstanding atlas. The text is scholarly, well polished, concise and easily understandable.

The section on congenital dislocation of the hip is sensible and well presented, bringing to view facts and figures not generally realized. It deserves study by all physicians who deal with this condition.

The section on traumatic lesions of the cervical spine, however, is inadequate, and by our standards, the one on hyaline membrane disease—an increasingly popular diagnosis in this part of the country—is less than ideal.

Generally speaking, this third edition of Caffey's PEDIATRIC X-RAY DIAGNOSIS is an excellent book, and pediatricians and radiologists not only should have it on their shelves but should use it constantly. In fact all doctors who have to do with children's diseases would be wise to have it available.—*Ralph E. Hines,* M.D.

THE RECOVERY ROOM, by *Max S. Sadove,* M.D., and *James H. Cross,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $12.00).

This book is the first published on the subject, although there have been a number of short articles on it in various journals. The authors are well qualified, for both of them have had considerable experience in the establishment and operation of recovery room and intensive therapy units.

Chapter one considers the subject from the point of view of the hospital and the hospital administrator. It deals with the problems that face new hospitals where the accommodations have been built to suit their purpose, and the ones that face old hospitals which are undertaking to adapt rooms that have previously had other uses. A number of diagrams as well as actual photographs of existing recovery rooms are presented. Matters of personnel are also covered.

Chapter two is a complete discussion of the general principles of recovery room management from the professional angle. It includes a thorough explanation of methods of selecting patients and determining the lengths of time they should remain in the room.

In chapter three, the authors present a detailed analysis of all matters pertaining to the management of circulation, shock, respiration, nutrition, etc., with methods of prevention as well as treatment of all conceivable emergencies that might occur in the room.

Subsequent chapters, written or edited by experts in their respective fields, give concise and detailed directions for the postoperative care of patients following all types of operations.

The last chapter is given over to a discussion of the responsibilities of recovery-room nurses.

The book is well written and should be of great value to any hospital that is planning the establishment of a recovery room. In addition, it is an excellent reference work and should be kept at hand for the use of all recovery-room personnel.—*E. P. Lovejoy,* M.D.

1956-1957 POSTGRADUATE COURSES AT SUI

September 12. Urology Conference.

September 18-19. Pediatrics Refresher Course, sponsored by the SUI Department of Pediatrics, the Iowa Pediatrics Society and the Maternal and Child Health Division of the Iowa State Department of Health.

October 12-13. Radiology Short Course, to be held in conjunction with the meeting of the Iowa Radiological Society. October 13 is "Dads' Day" at the University, and the day of the Wisconsin game.

October 25. Dermatology and Syphilology—basic principles of diagnosis and treatment of skin disease, with recent additions and advances in dermatologic therapy.

November 2-3. Otolaryngology for the General Physician. November 3 is to be "Homecoming Day" at the University, and there will be a football game with the University of Michigan.

November 16-17. Obstetrics and Gynecology Short Course, to be held in conjunction with the meeting of the Iowa Obstetrical and Gynecological Society, and under the joint sponsorship of the College of Medicine and the Division of Maternal & Child Health of the Iowa State Department of Health. November 17 is the date of the Ohio State football game in Iowa City.

December 7. Oxygen Therapy. This course will be held at the Veterans Hospital in Iowa City, and is intended for hospital technicians, nurses and other ancillary personnel.

December 7-8. Cancer Symposium, to be held under the joint sponsorship of the College of Medicine and the Iowa Division of the American Cancer Society. On December 8, the SUI basketball team is to play its first home game, against Denver University.

January 16. Gastroenterology for the General Physician, a course presented by the SUI Departments of Medicine and Surgery.

February 20-23. Refresher Course for the General Physician, jointly sponsored by the College of Medicine and the Iowa Academy of General Practice. On February 23, the SUI basketball team plays a game with Northwestern University at Iowa City.

March 27. Hematology and Steroid Hormone Course.

April 17. Neurology.

WOMAN'S AUXILIARY NEWS

Mrs. E. T. Burke, *Woman's Editor*
601 S.W. 42nd St., Des Moines 12

Mrs. D. F. Crowley, Jr., *Asst. Woman's Editor*
663-44th St., Des Moines 12

OUR PRESIDENT SAYS—

It seems but a few moments ago that we finished our Annual Meeting in April, and your officers along with your elected delegates were planning to attend the National Convention of the Woman's Auxiliary. Our young people were looking forward to a long summer vacation, and we parents were likewise anticipating the change of pace.

Several weeks ago, however, I drove along highways bordered by beautiful farm lands and observed the harvesting of oat crops. That, to me, meant the beginning of fall. Farmers will soon begin their fall planting, the school-age members of our families will be busy with back-to-school thoughts and activities, and we doctors' wives will begin to think of fall cleaning and recommencing community activities.

It's natural that you should think first of the health and welfare of your families, and quite appropriately, Mrs. Flanders, our national president, has chosen as her theme for 1956-1957 "Health is our greatest heritage." Thus, participation in Auxiliary activities this year will not be an additional burden, but will merely be an extension of your own aims in your chosen career as homemaker and doctor's wife.

As individuals, how can we best accomplish those aims? Our program must be one of self-education and of cooperation with community leaders. From the NEWS BULLETIN of the Utah Medical Auxiliary for March, 1955, comes a self-questionnaire that seems to me a fitting guide.

Are you courteous?

Are you thoughtful?

Are you interested in others?

Are you willing to do more than your share in volunteer work?

Are you informed about the needs of your community?

Can you discuss civic problems intelligently?

Do you use common sense and always exhibit good manners?

Do you remember to do that extra something that always wins friends?

Good advice: from the Greeks, "Know yourself"; from the Romans, "Be yourself"; from the Christians, "Give yourself."

By this time you will have received the minutes of the State Auxiliary Workshop and Board Meeting. We had excellent attendance, and all members worked very hard. You will be receiving suggestions from your state chairmen, and if you need more help, I suggest that you write to them. It is my earnest hope that by the time of the Fall Board Meeting, each of you will have set your goals for the year, and that you will have defined the paths that you are to follow in reaching them.

The 13th Annual Conference of State Presidents, Presidents-elect and National Committee Chairmen will be held in Chicago, October 1-3. Mrs. James F. Gerken, your president-elect, and I shall attend, and we hope to have our administrative secretary, Mrs. Hazel Lammey, with us.

We are honored to have two past presidents of our State Auxiliary on national committees. Mrs. Lester Hegg is on the Nominating Committee, and Mrs. Charles Flynn has accepted the North Central Regional Chairmanship of Program, under the general chairmanship of Mrs. John M. Chenault.

Our Fall Board Meeting is scheduled for Tuesday, October 23. Afterwards, we hope to have some new ideas and new materials for all of you.

Please help your officers, councilors and committee chairmen to do their job effectively. Read their letters to you, and answer the questions that they direct to you.

Mrs. Dean H. King, *President*

CONVENTION DELEGATES' IMPRESSIONS

To appreciate and comprehend the enormity of an AMA Annual Meeting, one has but to peruse the registration figures that were announced on Thursday of convention week. Total registration soared to 19,431, including 8,825 physicians, and 10,600 residents, interns, medical students and guests.

By Tuesday, June 12, the Auxiliary registration was as follows:

11 past presidents of the National Auxiliary
35 state presidents
424 delegates and 38 alternates
407 members
60 guests and 34 junior guests (children)

The National Auxiliary membership now is 70,862, and there are 2,767 associates and 10 honorary members. The 559 members in arrears cannot be omitted, for though they necessitate extra bookkeeping, they are nevertheless important.

All but two states showed a gain in membership. There were 6,620 new members who joined the local Auxiliaries during the year, and 178 members made up the necrology list.

The National Auxiliary Treasurer reported an income of $73,959 from membership dues. It was

also stated that about 10 per cent of the budget ($6,502) had been given to the AMEF.

Food for thought: Delegates from several states raised the issue of reducing the numbers of delegates to the National Convention from the component state Auxiliaries.

Mrs. Elmer A. Vorisek, *Treasurer*

IAGP PLANS PROGRAM FOR DOCTORS' WIVES

The doctors aren't alone in being assured of a fine program at the Eighth Annual Meeting and Formal Postgraduate Course of the Iowa Academy of General Practice, which is to be held at the Savery Hotel, in Des Moines, on September 13 and 14.

If food is the way to a man's heart, certainly thoughtful consideration for the interests of doctors' wives is the way to assure good attendance at a meeting of doctors. Because the GP's program committee has been mindful of that fact, many physicians will find that the above dates have been circled on their own calendars as well as on their wives'. And the wives of general practitioners who aren't yet members of the Academy will soon be suggesting that their husbands join that fine organization. (Non-members and their wives, incidentally, are invited to attend.)

Here is the schedule of events for the ladies.

Thursday, September 13

Spend the morning as you desire.

12:15 p. m. Luncheon—with your husband
"Problems of Athletics for Girls"—*M. Gladys Scott,* professor and chairman of Physical Education for Women, SUI

2:15 Tour of Salisbury House, Headquarters of the Iowa Education Association (Transportation will be provided)

6:30 Reception

7:00 Banquet and Dance

Friday, September 14

Spend the morning as you desire.

12:15 p. m. Luncheon—with your husband
"Juvenile Delinquency—a National Problem"—*Philip G. Green,* director of the Juvenile Delinquency Service, Department of Health, Education and Welfare

2:15 "Putting Your Best Face Forward"—presented by Younkers in the Iowa Room, Mezzanine Floor, Hotel Savery

We are saddened to hear of the death of Mrs. C. B. Murphy, of Alton, Sioux County. Mrs. Murphy was a loyal and devoted Auxiliary member, and was holding the office of secretary-treasurer of her county chapter at the time of her death. May her enthusiasm and ideals remain with all of us.

AMERICAN MEDICAL EDUCATION FOUNDATION

Medical training is by far the most expensive sort of education today. The course is necessarily the longest; relatively high salaries are, quite properly, paid to professors of medicine and surgery; and the equipment that is essential for modern medical education and research is ever more and more elaborate and costly. The average expense that the medical school incurs is $10,000 per student per year, and of that sum, student fees meet no more than one-fifth.

In order to maintain their present teaching program, the 80 approved medical schools of the country need $10,000,000 annually. For 1955, the AMA pledged to contribute $2,000,000, and the national Auxiliary's gifts were to be included in that amount. For the fiscal year ending June 30, 1955, the national Auxiliary collected $80,539.65 for the AMEF, from its (approximately) 72,000 members, and $260.70 of that sum came from Iowa's 1,050 members. Because the national Auxiliary's goal is being raised to $100,000 this year, and because Iowa fell far short of the national average in contribution-per-member last year, it behooves us to make an extra effort to be sure that we do our part in this worth-while project.

Remember that your gift can be earmarked for the school of your choice. The money goes not to individual students, but to the medical school, for it to use as it sees fit.

Let's try to be one of the "'100 per cent" Auxiliaries this year, as regards contributions to the AMEF! All of us have friends in the medical profession for whom it is well nigh impossible to select Christmas gifts. They will be pleased if we send them cards—which the Auxiliary can supply—saying that we have sent contributions in their names to the American Medical Education Foundation. And the Auxiliary has other cards on which we can tell bereaved families that we have sent memorial gifts to the AMEF. All checks should be made payable to the AMEF Auxiliary Fund.

COUNTY AUXILIARIES

Polk

The Auxiliary to the Polk County Medical Society met for a summer coffee at Greenwood Park, Des Moines, on July 9. Mrs. Dwight Wirtz, president, presided at the meeting. The Auxiliary's meeting day was changed from the second Monday to the second Friday of the month. Further plans were made for the fall and winter.

NEBRASKA HEART CONFERENCE

Iowa physicians are invited to attend the annual scientific sessions of the Nebraska Heart Association at Omaha on October 5 and 6. Arrangements have been made for joint sponsorship of the meetings by the Iowa Heart Association, according to Mr. Lloyd Wagnon, the organization's new executive director. Dr. Robert L. Grissom, of Omaha, the program chairman, would like the Iowa doctors who plan on attending to make reservations through the Iowa Association's office, 2100 Grand Avenue, Des Moines 12. There will be no fees.

Dr. J. W. Culbertson, of SUI, president of the Iowa Heart Association, will speak on "The Importance of Research in Heart Disease" to a session that will be open to laymen as well as physicians. Dr. Ormand Julian, of the University of Illinois, will talk on "Management of Peripheral Vascular Disease" and "Diseases of the Aorta and Their Surgical Implications." Dr. Walter E. Judson, of the University of Indiana, will discuss "Combination of Drugs in the Treatment of Arterial Hypertension" and "Hemodynamic Effects of Hypotensive Drugs in Hypertensive Patients." The topics to be covered by Dr. Vincent C. Kelley, of the University of Utah, are "The Prevention of Rheumatic Fever" and "Treatment of Acute Rheumatic Fever." And rheumatic fever will also be the subject for the two papers by Dr. Alvin F. Coburn, of the Chicago Rheumatic Fever Institute, their titles being "Some Observations on Prevention of Rheumatic Fever" and "Non-specific Tests for Detection of Rheumatic Activity."

K.U. POSTGRADUATE SHORT COURSES

On October 22-24, a School Health Conference will be held at the University of Kansas Medical Center, in Kansas City, Kansas. Discussions on the first day will pertain to heart disease in school-age children. Pulmonary disease will be covered on the second day.

K.U.'s annual short course in obstetrics will be held on November 1-3. The program will stress the clinical application of some recent studies on the causes and effects of abortions, the role of the endocrine glands in pregnancy, the Rh factor and other incompatibilities, and the management of obstetric shock.

A set of symposium-type discussions have been planned as the K.U. postgraduate course in internal medicine, to be offered on November 12-14. Twelve guest instructors of national reputation will present most of the lectures and will participate in rounds and panel discussions. Twenty-two members of the K.U. medical faculty will have parts in the program.

The general symposium subjects include rheumatic disease, disease of the adrenal gland, medical management of malignant disease, infectious diseases and collagen disease.

AMERICAN COLLEGE OF SURGEONS

More than 10,000 surgeons, physicians, students and and related medical personnel are expected to attend the 42nd Clinical Congress of the American College of Surgeons, in San Francisco, October 8-12. For the first time, student representatives from 16 medical schools will attend at College expense. Schools will participate in rotation at future clinical congresses, depending upon the location of the meeting. Students will be selected by the vote of their classmates. At the Congress, sponsors will meet with and advise the students daily, to assure their getting maximum benefit from their attendance.

At this year's sessions there will be several complete postgraduate short courses, in addition to color television, cine clinics, motion pictures, surgical forums, and scientific and technical exhibits. In addition to the medical lecturers, the doctors in attendance will hear Dr. Vannevar Bush, who has had a major role in the development of recent marvels in the realms of physics and chemistry.

KANSAS CITY SOUTHWEST CLINICAL SOCIETY

Fifteen distinguished guest speakers will participate in the 34th Annual Fall Clinical Conference of the Kansas City Southwest Clinical Society, on September 24-27, at the Municipal Auditorium in Kansas City, Missouri. In addition to formal lectures, there will be CPC and panel discussions, color television and daily round-table luncheon quiz sessions.

Forty-two scientific and 59 technical exhibits will be set up in the arena of the Auditorium.

For the entertainment of attending physicians and their wives, a series of festivities has been planned for the evening of September 25, at the Pla-Mor. After a social hour and a buffet supper, there will be a two hour concert of semi-popular music presented by 50 members of the Kansas City Philharmonic Orchestra. Concluding the program, there will be two hours of dancing, to a 12-piece dance band.

The list of guest lecturers is contained in an advertisement in this issue of the JOURNAL.

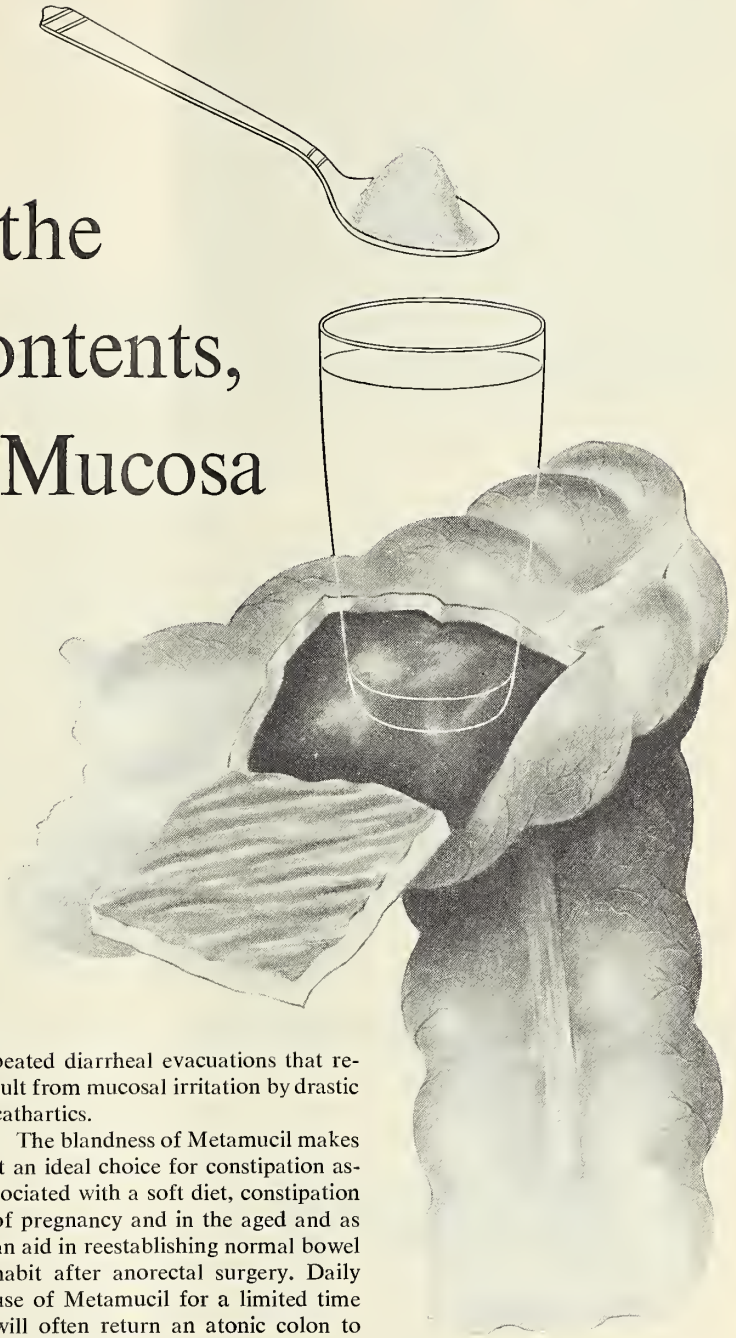
ACADEMY OF PSYCHOSOMATIC MEDICINE

A total of 44 speakers will cover every facet of the subject, at the Third Annual Meeting of the Academy of Psychosomatic Medicine, to be held at the Hotel Plaza, New York City, October 4-6. The points of view of both specialists and generalists will be represented.

The meeting is open to all interested physicians, and there is to be no registration fee. Inquiries should be addressed to the Secretary, 73 Bay State Road, Boston 15.

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The Month in Washington

Washington, D. C.—In terms of actual health bills passed and sums of money appropriated, the 84th Congress which ended just a few weeks in advance of party presidential conventions undoubtedly set some records. Measures ranged from the far-reaching program of disability cash payments to a bill for the commissioning of male nurses in the armed services.

In between are a wide variety of measures which, in the opinion of Secretary Folsom, of the Department of Health, Education, and Welfare, gives "promise of immediate and substantial progress on a wide front in the improvement of the nation's health."

Both Mr. Folsom and the President deplored the fact that Congress had not acted on their plan for federal aid to medical schools, but Congress decided that this was one of the subjects which needed more study before any further action could be taken. In addition, Mr. Folsom expressed disappointment that nothing had been done about giving authority for pooling arrangements among small health insurance companies and the long-dormant plan for a health reinsurance fund.

To finance medical research, the administration this session asked for the largest amount of money ever requested in one year. The appropriation finally voted was even larger, some $170,000,000. On top of this, Congress in its final hours appropriated nearly $80,000,000 to carry out the new legislation just passed.

FEDERAL HEALTH LAWS RECENTLY PASSED

Here are the highlights of major health bills approved by the 84th Congress:

Social Security Amendments—Changes in the 21-year-old social security law now include (1) Old Age and Survivors Insurance payments to disabled workers at age 50, paid from a "separate" fund, (2) extension of social security to some 250,000 dentists, lawyers, osteopaths and other self-employed persons, (3) lowering of retirement age for social security purposes for women from 65 to 62, (4) earmarked payments for medical care of public assistance recipients, and (5) increase of payroll deductions by one half of one per cent and three-eights of one per cent for the self-employed.

Laboratory Research Facilities—The Hill-Bridges bill for $90,000,000 in construction grants over three years to public and non-profit institutions to erect research facilities started out in the Senate as a bill to aid research in crippling and killing diseases, but wound up as a bill providing money for research in all "sciences related to health."



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Health Amendments Act—The so-called little omnibus health bill provides for federal grants for training practical nurses, public health specialists and professional nurses qualified for teaching and administrative jobs—plus a two-year extension beyond next July 1 of the 10-year-old Hill-Burton hospital program, and special projects grants for mental health studies and demonstrations.

Medical Care for Military Dependents—A long-sought goal of the Defense Department was the enactment of a permanent program of medical care for dependents of armed services personnel either in military hospitals and clinics or through private sources. It is scheduled to begin early in December.

National Library of Medicine—Another proposal long in the making was the reestablishment of the Armed Forces Medical Library as the National Library of Medicine. For administrative purposes, Congress put it under the Department of HEW, but left up to the 17-man board of regents the selection of site—in all likelihood in the Washington area.

Sickness Survey—Authorization has been granted for special and continuing surveys on the extent of illness and disability in the U. S., along with medical care being offered—the first detailed study of its kind in over 20 years. The work will be done by the Public Health Service.

Water Pollution Control—The USPHS is authorized to make grants to states and communities to help in construction of sewage disposal plants, at the rate of $50,000,000 a year for 10 years.

Some other measures signed into law by the President were: establishment of a mental health program for Alaska, budget increases for additional staff for the Food and Drug Administration along with a new headquarters building for modern laboratories, provision of medical care in U. S. military facilities for employees and dependents of the State Department abroad, a $400,000 fund to finance the holding of the World Health Assembly in this country in 1958 (which is the 10th anniversary of the founding of the World Health Organization) and permitting the granting of commissions in the armed services to osteopaths.

NOTES

The new surgeon general of the USPHS is Dr. Leroy E. Burney, a career officer in the commissioned corps and for 10 years commissioner of health for the state of Indiana. Until his nomination by the President, he was deputy chief of the USPHS Bureau of State Services. Dr. Burney received his medical degree from Indiana University.

The federal government withdrew from the allocation of the Salk poliomyelitis vaccine just 15

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months after the first release of the vaccine, but federal grants to states to help finance inoculation programs continues.

In preparation for a national blood bank directory, the Joint Blood Council with headquarters in Washington launched a nation-wide survey of all blood banks on September 1.

POSTGRADUATE GASTROENTEROLOGY

The American College of Gastroenterology will conduct its annual postgraduate course at the Roosevelt Hotel, New York City, on October 18-20.

The course will again be under the direction and co-chairmanship of Dr. O. H. Wangensteen, professor of surgery at the University of Minnesota, and Dr. I. Snapper, director of medical education at Beth-El Hospital, Brooklyn. They will be assisted by a distinguished faculty.

The subject matter, considered from both the surgical and the medical viewpoint, will include, in addition to the strictly gastrointestinal diseases, ailments of the mouth, esophagus, stomach, pancreas, spleen, liver and gallbladder.

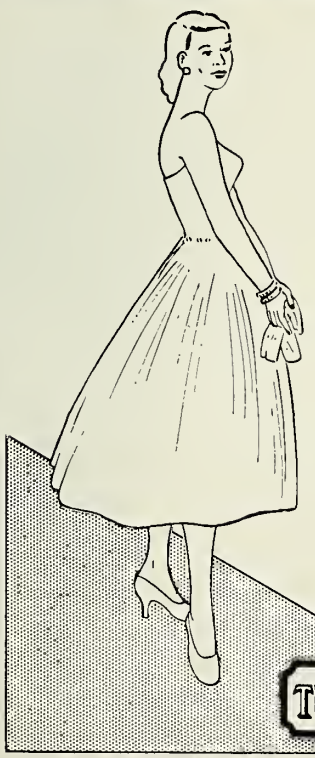
Coming Meetings

(Continued from page 508)

Oct. 22-Nov. 2	**Treponema Pallidum Tests for Syphilis.** V-D Research Laboratory, Chamblee, Georgia
Oct. 22-Nov. 3	**Gastroenterology.** Cook County Graduate School of Medicine, Chicago
Oct. 22-Nov. 2	**Gynecology Course II.** Cook County Graduate School of Medicine, Chicago
Oct. 22-Nov. 9	**Obstetrics & Gynecology.** Cook County Graduate School of Medicine, Chicago
Oct. 22-Nov. 9	**Physical Rehabilitation for Nurses.** NYU, NYC
Oct. 22-Nov. 16	**Basic Course in Use of Radioisotopes.** Oak Ridge, Tennessee
Oct. 24-25	**Progress in Management of Rheumatic Diseases.** Bunts Institute, Cleveland
Oct. 24-26	**Aviation Medicine.** UCLA, Los Angeles
Oct. 25-27	**Pediatrics.** UCLA, Los Angeles
Oct. 29-31	**Rheumatology.** U. of Oregon, Portland
Oct. 29-31	**Auscultation of the Heart.** NYU, NYC
Oct. 29-31	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 29-31	**Minor Surgery.** Mt. Sinai Hospital, NYC
Oct. 29-Nov. 1	**24th Annual Assembly, Omaha Mid-West Clinical Society.** Hotel Fontanelle, Omaha
Oct. 29-Nov. 2	**Present Concepts of Internal Medicine.** Letterman Hospital, San Francisco
Oct. 29-Nov. 2	**Industrial Health for Nurses.** NYU, NYC
Oct. 29-Nov. 3	**Management of Mass Casualties.** Walter Reed Hospital, Washington, D.C.
Oct. 29-Nov. 3	**Surgery of the Eye for Specialists.** NYU, NYC
Oct. 29-Nov. 3	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago

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HOSPITAL ACCREDITATION

In June, 1955, six resolutions, each from a different state, were presented to the AMA House of Delegates, each seeking the correction of an alleged deficiency in the program of the Joint Commission on Accreditation of Hospitals. Accordingly, a special committee was named to study all facets of the hospital accreditation program.

In June of this year, it was evident that the members of the House were agreed upon the thorough manner in which the special committee had surveyed the problem and upon the recommendations it had made to meet the several situations which had aroused the rash of resolutions a year earlier. It was particularly noted that while the committee did find some dissatisfaction with the functions of the Joint Commission, the dissatisfaction was "not as widespread geographically" as it had been led to believe, and in many cases was based upon misunderstanding or misinformation.

Without enumerating the 17 recommendations of the special committee—all approved by the House—it is worth pointing out the effect of the more important items.

First, the committee recommended that general practice sections in hospitals should be encouraged. It stated that the Joint Commission should not be a punitive body and should not concern itself with the number of hospital staffs to which a physician might belong.

On the administrative side, the committee made recommendations which permit the smaller hospital to maintain high standards without having to operate on a basis comparable with that of larger hospitals. It likewise urged that hospital inspectors, heretofore employed by their respective bodies, become employees of the Joint Commission. The special committee called attention to the fact that adoption of its recommendations would have no bearing on the inspection for approval of internships and residencies, which still will be a function of the AMA only.

One additional recommendation of great importance to physicians is worthy of verbatim report: "Staff meetings required by the Joint Commission are acceptable, but attendance requirements should be set up locally and not by the Commission."

In addition to the approved recommendations of the special committee, the AMA House of Delegates approved further suggestions which would urge the Joint Commission to study the problems of the general practitioner on hospital staffs and to assure hospital privileges to staff members in accordance with their demonstrated ability and qualifications.

It should be borne in mind that these are no more than the AMA's recommendations, and must be approved by the Joint Commission before they can become effective. But with physicians hold-

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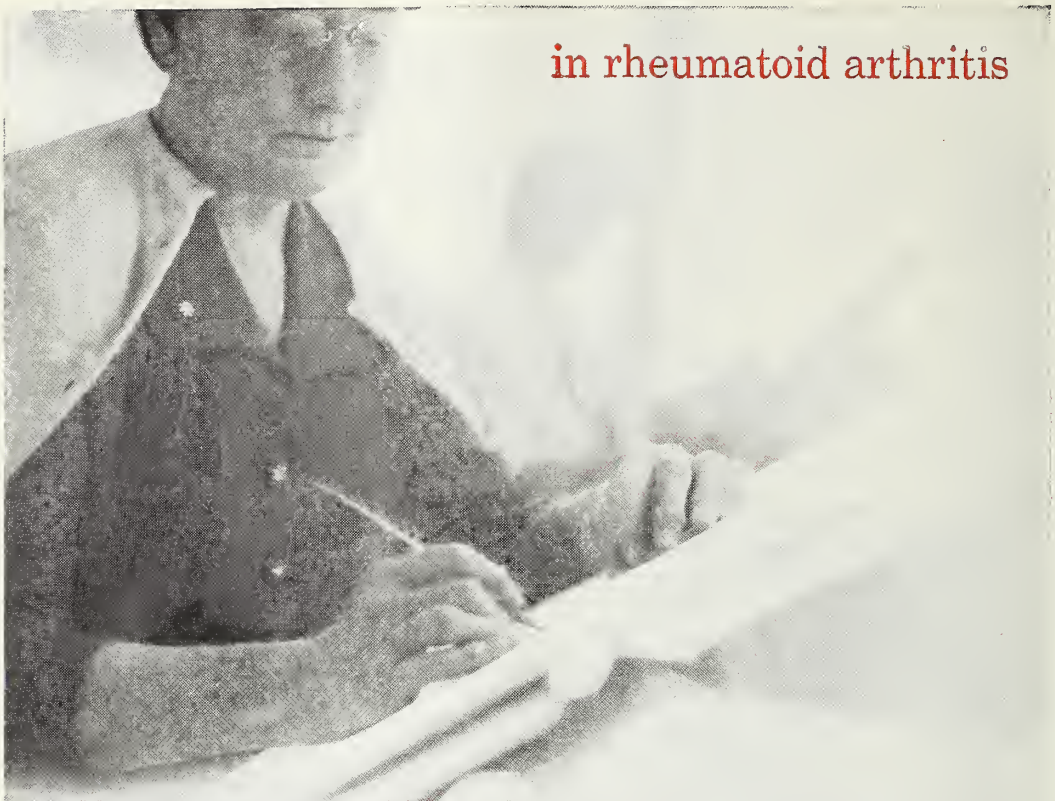
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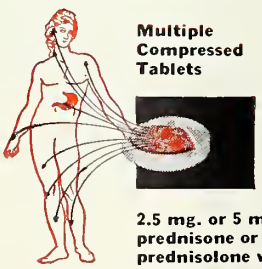


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References: 1. Boland, E. W., *J.A.M.A.* 160:613 (February 25) 1956. 2. Margolis, H. M. *et al.*, *J.A.M.A.* 158:454 (June 11) 1955. 3. Bollet, A. J. *et al.*, *J.A.M.A.* 158:459 (June 11) 1955.

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ing 13 out of 20 voting posts on the Joint Commission, it seems likely that formal approval will be given them. When and if such approval is voted, local autonomy will have gained a further foothold, and a more realistic approach to hospital accreditation will have been born.

Adapted from an Editorial in
CALIFORNIA MEDICINE, July, 1956

SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 11:15 a.m.

"Well at Work"

September 6 .....Major Job Problems—Job Reassignment
September 13 .....Occupational Disease Control
September 20 .....Alcoholism in Industry
September 27 .....Women in Industry

WSUI—Iowa City, Iowa
Tuesday at 11:45 a.m.

"Superstition or Science"

September 4 .....Magic Touch
September 11 .....Nutrition Fallacies
September 18 ..... Quinine

Monday at 3:45 p.m.

September 24 .....Electricity and Magnetism

TELEVISION

KGLO-TV—Mason City, Iowa
Monday at 2:00 p.m.

September 3 .....Food Fads and Facts
September 10 .....Lumps, Bumps and Glands
September 17 .....Abdominal Pain
September 24 ..... Fertility

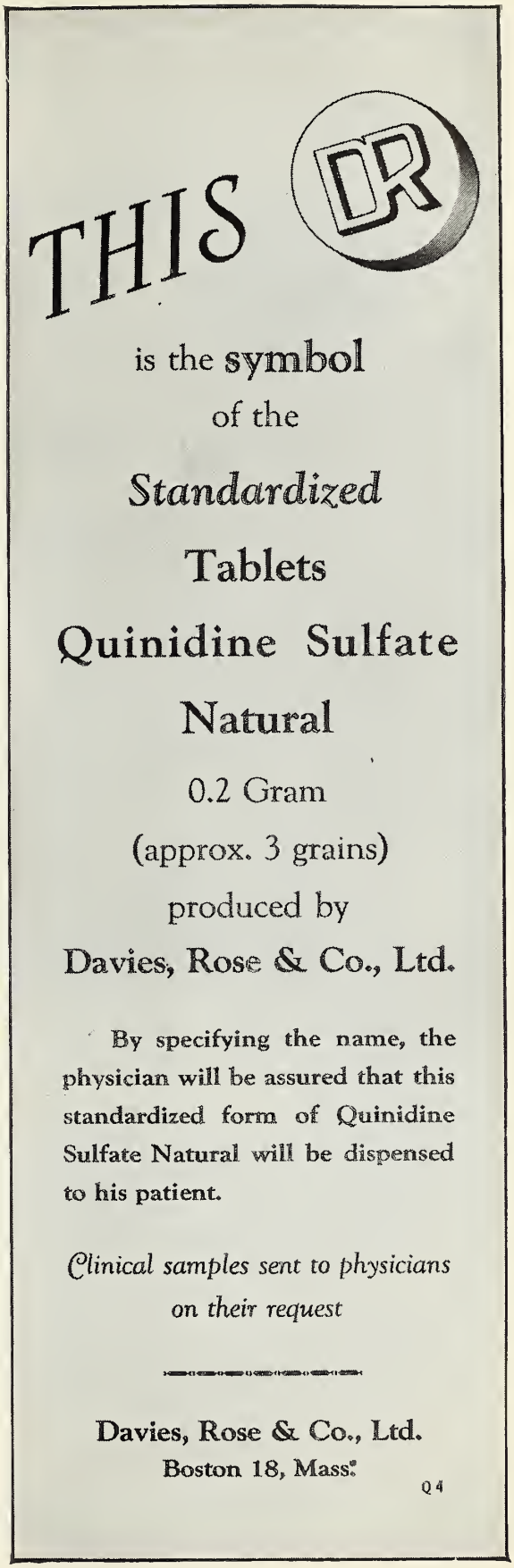
KCRG-TV—Cedar Rapids, Iowa
Sunday at 12:00 noon

September 2 .....Ulcer Therapy
September 9 .....Food Fads and Facts
September 16 .....Lumps, Bumps and Glands
September 23 .....Abdominal Pain
September 30 ..... Fertility

KTIV-TV—Sioux City, Iowa
Saturday at 3:30 p.m.

September 1 .....Auto Accidents
September 8 .....Preceptor Program
September 15 .....Ulcer Therapy
September 22 .....Food Fads and Facts
September 29 .....Lumps, Bumps and Glands

Though the schedules have not been definitely decided upon as the JOURNAL *goes to press, ISMS expects to televise programs during September over two additional Iowa stations: KRNT-TV, Des Moines, and KQTV, Fort Dodge. The data presented here are subject to change at the discretion of the station managers.*





Blue Cross
Blue Shield



What Does "Blue Shield" Mean to You?

Have you ever stopped to ask yourself, doctor, why some 37,000,000 Americans have enrolled in Blue Shield, the medical profession's own approved prepayment program, in little more than ten years' time?

Blue Shield and its companion Blue Cross have built up the most stupendous enrollment of any insurance program that ever offered coverage to the American people—at a minimum expense and by relatively "low pressure" methods. This accomplishment has been possible because there is now an almost universal desire for protection against the costs of unpredictable illness. The chief reason why so many people have chosen Blue Shield is that they know it is recommended and supported by the medical profession, and most people have confidence in the nation's doctors.

By the same token, more Americans have chosen Blue Cross than any other hospital insurance program because Blue Cross is sponsored by the hospitals, and the public believes in the integrity and efficiency of our voluntary hospital system.

Doctors and hospitals have created for themselves an immeasurable stockpile of good will by means of these Plans. But the preservation of that great asset depends upon eternal vigilance on the part of physicians and hospitals.

When the doctor speaks well of Blue Shield, when he renders the best of service to Blue Shield patients, when he tries to conserve the resources of Blue Shield against extravagance or abuse, when he conscientiously fulfills his voluntarily accepted obligations as a participating physician, then he is helping to preserve and increase that asset. He is helping to make ever more formidable the shield that protects the freedom of medical practice.

Blue Shield is also a bridge of common interest and mutual benefit between the doctor and his patient—evidence to each of the trust and confidence of the other. Blue Shield is an assurance to the patient of prepaid service when he needs it. To the Doctor, Blue Shield assures prompt compensation for his services.

PERSONALS

Dr. Hugo A. Lindholm has joined his brother **Dr. C. V. Lindholm** in practice at Armstrong after an absence of four years. During that time, he has been a resident in surgery at Northwestern Hospital, Minneapolis.

After 55 years in the practice of general medicine and obstetrics at Ottumwa, **Dr. E. G. Barton** retired in July and made St. Joseph Hospital a gift of his medical library.

Dr. Charles D. Brummitt, who recently completed his internship at the Fresno County Hospital, in California, is practicing with his father, **Dr. Charles F. Brummitt,** at Centerville. At latest report, he had not decided whether or not to remain there permanently.

After completing his internship at the Gorgas Memorial Hospital, in the Canal Zone, **Dr. Paull Hanson,** a 1955 graduate of the College of Medicine at SUI, has begun practice at Mt. Pleasant.

Dr. Norman J. Elmer, who joined **Dr. Holger Andersen** in practice at Strawberry Point on July 8, was able to stay there an even shorter time than he had expected. He was inducted into Navy service on August 13.

Dr. Robert Cornish, a graduate of the College of Medicine at SUI who has been in the Air Force for the past two years, has joined **Drs. C. A. Trueblood** and **L. W. Porter** in practice at Indianola.

A graduate of the Creighton University Medical School who recently completed his internship at St. Joseph Mercy Hospital, Sioux City, **Dr. Charles A. Fangman,** began practice in Coon Rapids on July 16.

Dr. Philip M. Porter, a 1949 graduate of the University of Oregon Medical School who recently completed a residency in surgery at Iowa Methodist Hospital, Des Moines, joined Medical Asso-



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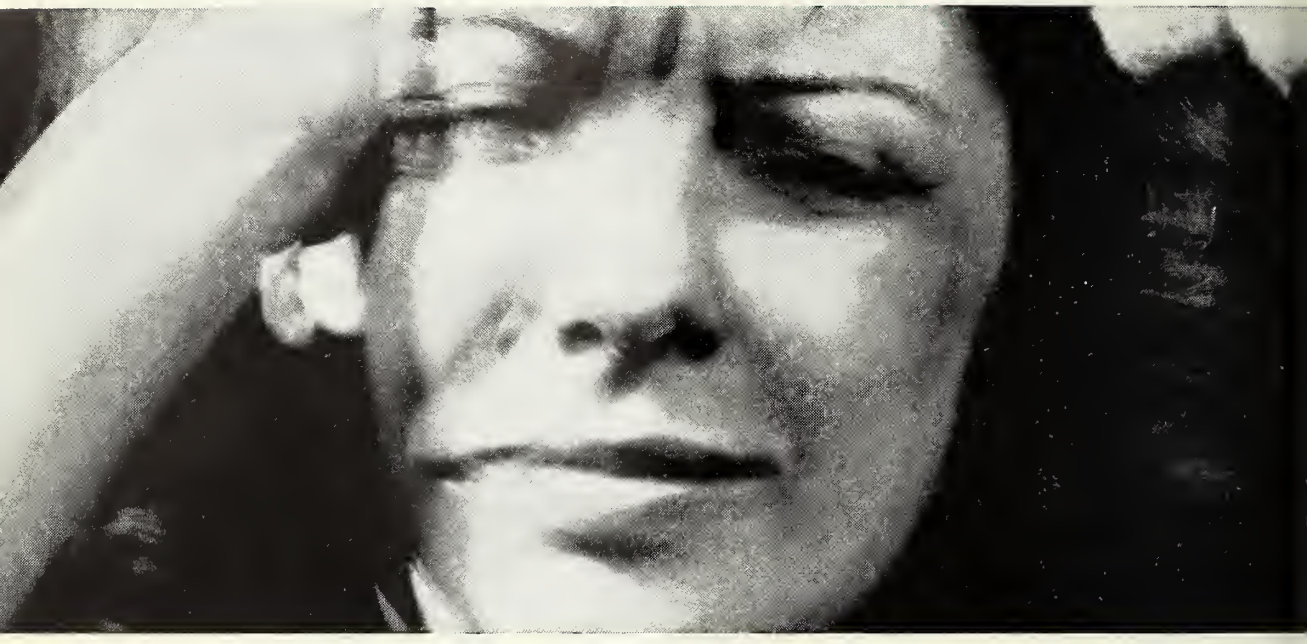
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visceral spasmolysis
mucosal analgesia

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- In the acute psychotic
- In the drug addict

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For intravenous, intramuscular, or oral administration

1. Fazekas, J.F., et al.: J.A.M.A. **161**:46 (May 5) 1956. 2. Mitchell, E.H.: J.A.M.A. **161**:44 (May 5) 1956.

NEW Potent Ataractic Drug

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ciates, at New Hampton, early in July. He has the Army rank of captain.

Dr. T. L. Ward, of Arnolds Park, was flown home on July 17 from University Hospitals, Iowa City, where he had undergone surgery early in June.

After finishing his internship at Wayne County General Hospital, Detroit, **Dr. John Malek** has begun practice in Waterloo with **Dr. Donald Bickley.**

Drs. Kenneth Gee, George Powers, J. R. Eisenach and **Harold Henstorf** occupied their new building at Shenandoah early in July.

Glenwood has a new physician in the person of **Dr. Charles D. Stinard,** a graduate of Albany Medical College who has practiced during the past ten years at Franklin, New York.

Dr. Andrew C. Smith has joined **Dr. Herbert Shulman** in the practice of internal medicine at Waterloo. He is a 1952 graduate of the SUI College of Medicine, and served his internship and residency at Detroit Receiving Hospital.

Dr. John R. Bailey began practice at Anamosa on July 5 in association with **Drs. J. D. Paul** and **G. F. Brown.** He is a 1955 graduate of the SUI College of Medicine and interned at the U. S. Navy Hospital at Great Lakes, Illinois.

In mid-July, **Dr. Paul T. Cawley,** a specialist in internal medicine, formed an association with **Dr. Leo Kuker** in Carroll. Dr. Cawley is from Denver, where he has been a resident at the University of Colorado Hospitals. He is a medical graduate of Creighton University.

On July 1, **Dr. John D. Compton** began practice at Edgewood. He is a 1955 graduate of the College of Medicine at SUI and interned at St. Mary's Hospital, Wausau, Wisconsin.

Dr. Roger R. Flickinger, of Mason City, has received a 10-year service award from the Selective Service System for his work as medical advisor to the Cerro Gordo County Draft Board.

In the Des Moines TRIBUNE for August 2, **Mr. Herb Owens** devoted his column "Along the Way" to **Dr. J. L. Doyle,** of Sigourney. The article stated

The Kansas City Southwest Clinical Society
34th Annual Fall Clinical Conference

Municipal Auditorium—Kansas City, Missouri

September 24, 25, 26, 27, 1956

DISTINGUISHED GUEST SPEAKERS

I. S. Ravdin (S) Philadelphia—delivering the Fourth Edward Holman Skinner Memorial Lecture
W. A. D. Anderson (Path) Miami, Florida
B. Marden Black (S) Rochester, Minnesota
George Crile, Jr. (S) Cleveland, Ohio
Urban H. Eversole (Anes) Boston, Mass.
Edgar Hull (M) New Orleans, Louisiana
Chevalier L. Jackson (Ot) Philadelphia, Penna.
Laurance W. Kinsell (M) Oakland, California
John M. Lyon (M-Psy) Denver, Colorado
Walter G. Maddock (S) Chicago, Illinois
Carl V. Moore (M-Hem) St. Louis, Missouri
LeRoy H. Sloan (M) Chicago, Illinois
E. Stewart Taylor (OG) Denver, Colorado
Don C. Weir (R) St. Louis, Missouri
Ben J. Wilson (S) Dallas, Texas

(See news story on page 524 of this JOURNAL.)

The September issue of the KANSAS CITY MEDICAL JOURNAL carries the complete program of the Fall Conference. If interested, write for a copy—Kansas City Southwest Clinical Society, 3036 Gillham Road, Kansas City 8, Missouri.

Cook County Graduate School of Medicine

INTENSIVE POSTGRADUATE COURSES

Starting Dates—Summer & Fall, 1956

SURGERY—Surgical Technic, Two Weeks, October 29, November 26
Surgical Anatomy & Clinical Surgery, Two Weeks, October 1
Surgery of Colon & Rectum, One Week, October 15
General Surgery, One Week, October 22
Thoracic Surgery, One Week, October 1
Esophageal Surgery, One Week, September 24
Breast & Thyroid Surgery, One Week, October 22
Gallbladder Surgery, 3 days, October 29
Fractures & Traumatic Surgery, Two Weeks, October 15

GYNECOLOGY & OBSTETRICS—Obstetrics & Gynecology, Three Weeks, October 22
Vaginal Approach to Pelvic Surgery, One Week, October 15

MEDICINE—Electrocardiography & Heart Disease, Two-Week Basic Course, October 8; One Week Advanced Course, September 17
Internal Medicine, Two Weeks, September 24
Gastroenterology, Two Weeks, October 22
Dermatology, Two Weeks, October 15
Cardiology (Pediatrics), Two Weeks, November 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, November 26
Clinical Uses of Radioisotopes, Two Weeks, October 8

UROLOGY—Two-Week Course, October 8
Cystoscopy, Ten Days, by appointment

Teaching Faculty—Attending Staff, Cook Co. Hospital

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HENRY A. DOLLEAR, M.D.,
Superintendent
FRANK B. NORBURY, M.D.,
Associate Physician

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Restful, congenial homelike surroundings are combined with the most modern diagnostic and therapeutic equipment.

Maplewood—

Most comfortable homes for individuals requiring rest, scientific diagnosis and treatment. Fireproof construction.

that Dr. Doyle is a very prominent breeder of Arabian horses and is an authority on the history of those animals.

Dr. Abraham Gelperin, director of the Des Moines-Polk County Health Department, resigned his post, effective August 20, to join the staff of the state school for the mentally deficient at Dixon, Illinois. Commenting upon his decision, Dr. Gelperin said that he considered the opportunity to take charge of professional service and research at Dixon was too attractive for him to refuse. But it is generally believed that some maneuvering by the majority faction in the Des Moines City Council may in some measure have prompted him to make the move. **Mayor Ray Mills,** with the support of two of the four other councilmen, had proposed a set of ordinances designed to give the Council veto power over appointments by the city manager, and one of the measures would have vacated several important city jobs, Dr. Gelperin's among them. Subsequently, Mayor Mills and his supporters modified their proposals in some degree. Among other things, they no longer proposed the vacating of any jobs. But those changes were announced after Dr. Gelperin had resigned.

With two other Army Medical Corps Reserve captains, **Drs. H. L. Tiech** and **C. D. Osborn, Dr. J. A. Broman,** of Maquoketa, is the author of an article entitled "Is Premature Birth Preventable?" that was published in the May, 1956, issue of OBSTETRICS AND GYNECOLOGY, and abstracted in the July 21, 1956, issue of J.A.M.A.

Dr. Aaron P. Randolph, a 1954 graduate of the College of Medicine at SUI who has practiced during the past year at Burlington, opened an office in Anamosa on September 1.

Dr. Gordon W. Gray has associated himself with **Dr. W. G. Bessmer** in the practice of traumatic and industrial surgery in Davenport. A diplomate of the American Board of Surgery and shortly to be inducted into fellowship by the American College of Surgeons, Dr. Gray has been staff surgeon at the Veterans Administration Hospital in Des Moines.

On July 28, **Dr. and Mrs. Don C. Koser,** of Cherokee, and two other people in their car were shaken up and bruised when their car slid into a ditch a short distance west of Spirit Lake. None of the four were hospitalized.

Dr. J. P. Cogley, of Council Bluffs, was interviewed July 31 on an ABC television program in

the series called "Behold Thy Mother" and originating in Chicago. The topic for discussion was "Outdoor Shrines," and the **Reverend Father James Keane** questioned him about the shrine he has built near his home.

On August 11, carrying out the resolution that the JOURNAL reported several months ago, the town of Oakville named one of its streets in honor of **Dr. E. P. Russell**, of Burlington. The ceremony was preceded by a horseshoe tournament, a "kiddie parade" and a fish fry, and was followed by a street dance.

On July 30, the Winterset Lions Club sponsored a community farewell party for **Dr. John F. Veltman** and his family at the high school athletic field there. Eleven hundred people attended. Dr. Veltman is moving to Salisbury, North Carolina, where he is to work as an anesthetist.

Dr. T. M. Reilly has bought the practice of the late **Dr. F. C. Armstrong** at Cascade. He is a 1934 graduate of the Georgetown University Medical School.

The new director of the State Mental Health Institute at Independence, **Dr. James Cromwell**, has named a former colleague of his at the Blackfoot (Idaho) Mental Hospital, **Dr. E. C. Ping**, to be his clinical director and assistant superintendent.

Dr. John J. Bishop, a surgeon, has joined the staff of the West Davenport Clinic. He holds M.D. and M.S. (physiology) degrees from the Creighton University Medical School, and recently completed a four-year residency there.

Dr. Mable Hoiland is one of three newly appointed staff members of the Black Hawk Mental Health Center. She began private practice as a psychiatrist in New York City in 1931, and also held a variety of posts with the mental health services of the public schools, teachers' retirement system and department of correction there. During World War II, she was assistant chief of professional service at a hospital in Westchester. For the past several months she has been associated with **Dr. W. A. Tice** in practice at Waterloo. The other new staff members of the Center are **Mr. Harry Porter**, a psychologist, and **Mr. Henry Suozzi**, a psychiatric social worker. The personnel now numbers six.

Dr. Norman B. Nelson, dean of the College of Medicine at SUI, was elected to the Board of Directors of the Central Life Assurance Company,

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A message to the members of the

IOWA STATE MEDICAL SOCIETY insured under the GROUP SICKNESS AND ACCIDENT DISABILITY INSURANCE PROGRAM

To file a claim under your policy

1. Call or write our office in Des Moines
2. A simple one-sheet claim form will be forwarded immediately
3. Claims are paid immediately upon completion of disability or each four weeks, as you prefer
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Broad Income Protection suited to a Doctor's needs.

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in Des Moines on August 10. **Dr. Martin I. Olsen,** of Des Moines, is also a member.

Dr. W. D. Paul, professor of internal medicine at SUI, addressed the Second International Congress of Physical Medicine, in Copenhagen, Denmark, late in August, on his studies involving the application of moist heat as a treatment for post-polio patients, and involving abnormal changes in blood proteins and fats found in persons with muscular dystrophy. **Dr. J. I. Routh,** professor of biochemistry, who has been Dr. Paul's collaborator in both projects, shared in making the presentations.

At a 6:30 dinner meeting of the Pottawattamie County Medical Society on September 18 at the Chieftain Hotel, Council Bluffs, **Dr. Homer E. Wichern,** a Des Moines surgeon, will be the principal speaker.

Mr. Donald L. Taylor, executive secretary of the Iowa State Medical Society, has been made a member of the Advisory Committee to the Public Relations Department of the AMA. At the 1956 Public Relations Institute, a program for the purpose of stimulating and guiding the work of layman executives of state and county medical societies, presented on August 29 and 30 at the Drake Hotel, in Chicago, Mr. Taylor was one of two speakers on the topic "A Look Into the Future, From the State Society Point of View." **Mr. Ray Stewart,** public relations director for the ISMS, spoke on the topic "Kinescope Examples of Local Programming."

Mr. Gerald Buckles, field secretary of the Iowa State Medical Society, is to be the guest speaker at the meeting of the physicians in the Second Councilor District that is to be held at 6:30 p.m. September 11 at the Mason City Country Club. Members of the Cerro Gordo County Medical Society will be hosts.

At the Black Hawk County Medical Society's meeting on August 21, **Dr. Louis T. Palumbo,** of the Des Moines V-A Hospital, spoke on "The Surgical Approach for the Relief of Angina Pectoris." At the meeting scheduled for September 18, at 6:30, the guest speaker will be **Dr. John A. Schindler,** an internist from the Monroe Clinic at Monroe, Wisconsin, and his topic will be "Treatment of Psychosomatic Disease in General Practice."

The Johnson County Medical Society's first meeting of the fall and winter season will be held on October 3. None has been scheduled for September.

50 *and nine years*

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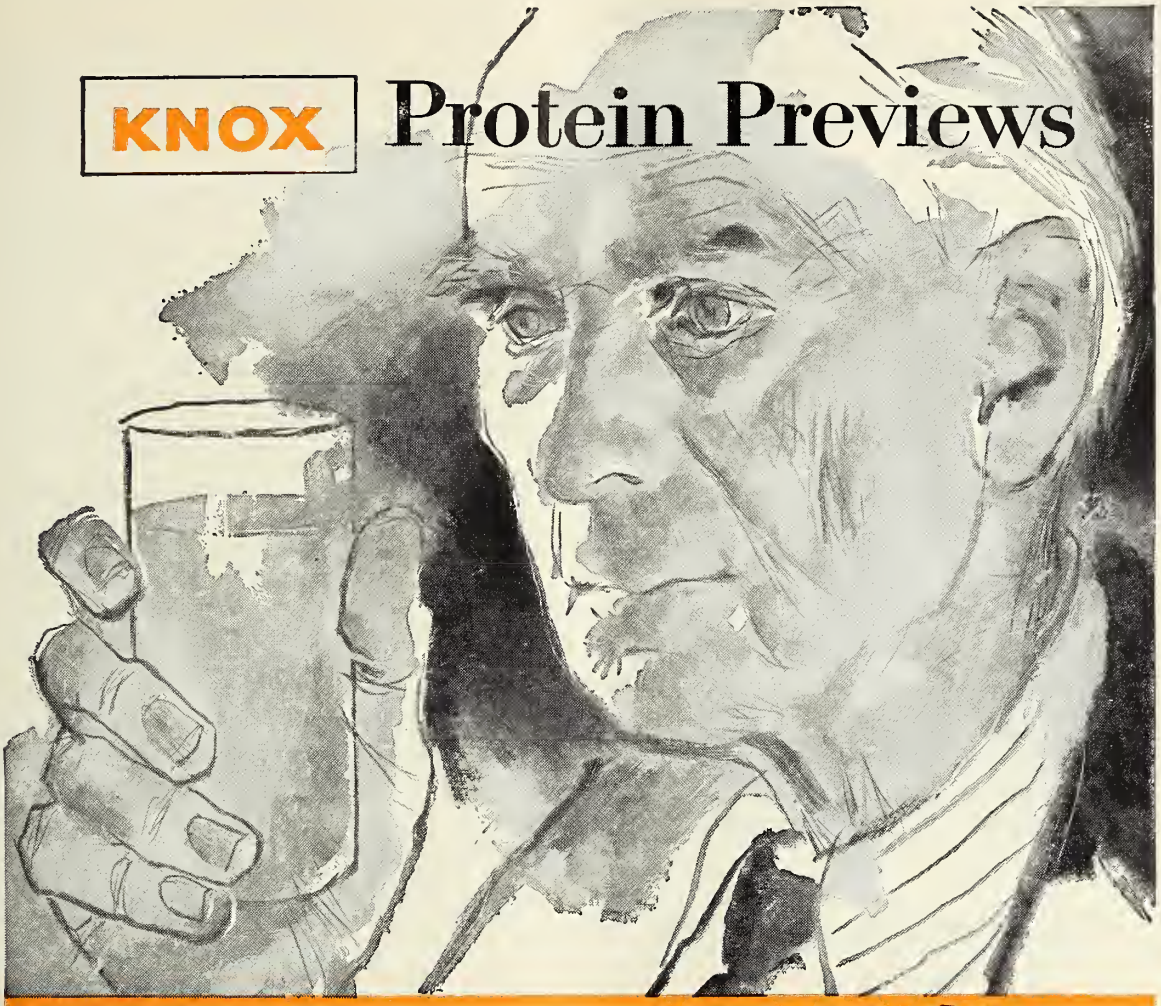
A Department of the Benjamin Burroughs Ralph Foundation for Medical Research

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in the Edentulous Geriatric Patient



Extensive loss of body protein can occur in either the spare or obese geriatric patient. But whatever the patient's somatotype, a decrease in lean body mass is usually the result of inadequate protein intake due to poor dentition, slowed-down digestion and quite frequently, unappetizing main dishes.

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DEATHS

Dr. Francis Leonard Love, 77, of Iowa City, died at Mercy Hospital there on July 21, after a short illness. He was a Life Member of the Iowa State Medical Society.

Dr. Arthur Albert Pace, 86, who practiced medicine in Tama County for 60 years, died at his home in Toledo on August 8. He was a Life Member of the Iowa State Medical Society.

Dr. Francis Peter Quinn, 64, an EENT specialist at Dubuque for the past 35 years, died quite unexpectedly at his home there on August 8.

Dr. Archie Abraham Arkin, 55, a physician who had practiced two years at Colfax and 16 years at Des Moines, died on August 14, following a heart attack, at St. Mary's Hospital, Rochester, Minnesota.

Dr. Robert Emmet Jameson, 75, who practiced dermatology at Davenport for 40 years until he moved to California about two years ago, died on August 12 at his home in Phoenix, Arizona, following a long illness.

POSTGRADUATE COURSE IN UROLOGY

for the General Practitioner and the Urologist
SUI College of Medicine
September 12, 1956

9:00	a. m.	Introductory Remarks R. H. Flocks, M.D.
9:15		Diagnostic and Therapeutic Problems in Urology of Interest to the General Physician John Greenleaf, M.D., and R. H. Flocks, M.D.
10:15		Question and Answer Period
10:30		Coffee Break
10:45		Microscopic Study of the Urinary Sediments; Its Value in Diagnosis and Management of Urinary Tract Diseases R. H. Flocks, M.D., and Staff
11:45		Question and Answer Period
12:15	p. m.	Lunch
1:30		Diagnosis and Clinical Significance of Congenital Urinary Tract Anomalies R. H. Flocks, M.D., and R. G. Bunge, M.D.
2:30		Question and Answer Period
2:45		Coffee Break
3:00		The Irritable Female Bladder R. H. Flocks, M.D., and John Greenleaf, M.D.
3:45		Question and Answer Period
4:00		Low Back Pain and the Urologist D. A. Culp, M.D.
4:45		Question and Answer Period

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Allamakee	C. R. Rominger, Waukon	D. W. Dohnalek, Waukon	D. W. Dohnalek, Waukon
Appanoose	G. L. Richey, Centerville	C. H. Mitchell, Cincinnati	E. F. Ritter, Centerville
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Bremer	R. P. Hardwig, Waverly	H. M. Hanson, Waverly	F. R. Sparks, Waverly
Buchanan	N. L. Hersey, Independence		P. J. Leehey, Independence
Buena Vista	H. D. Ruliffson, Storm Lake	T. E. Shea, Storm Lake	T. E. Shea, Storm Lake
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Cass	D. E. Wilcox, Atlantic	E. M. Juel, Atlantic	R. M. Needles, Atlantic
Cedar	H. E. O'Neal, Tipton	O. E. Kruse, Tipton	H. E. O'Neal, Tipton
Cerro Gordo	F. W. Kapke, Mason City	J. E. Christopherson, Mason City	H. G. Marinos, Mason City
Cherokee	C. L. Seaman, Cherokee	H. J. Fishman, Cherokee	D. C. Koser, Cherokee
Chickasaw	P. C. Richmond, New Hampton	D. L. Trefz, Nashua	M. J. McGrane, New Hampton
Clarke	H. E. Stroy, Osceola	G. I. Armitage, Osceola	G. I. Armitage, Osceola
Clay	D. H. King, Spencer	E. O. Schlichtemeier, Spencer	C. C. Jones, Spencer
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Clinton	R. J. Nelson, Clinton	J. F. Edwards, Clinton	V. W. Petersen, Clinton
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Emmet	C. V. Lindholm, Armstrong	R. L. Cox, Estherville	E. K. Vaubel, Estherville
Fayette	W. J. Wolf, West Union	H. C. Hallberg, Oelwein	A. F. Grandinetti, Oelwein
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Hamilton	W. B. McGahey, Webster City	E. F. Brown, Webster City	W. B. McGahey, Webster City
Hancock-Winnebago	D. H. Brown, Forest City	L. R. Fuller, Garner	T. J. Irish, Forest City
Hardin	D. H. Glenn, Eldora	F. N. Cole, Iowa Falls	L. F. Parker, Iowa Falls
Harrison	M. L. Deakins, Logan	F. X. Tamisiea, Missouri Valley	A. C. Bergstrom, Missouri Valley
Henry	J. G. Widmer, Wayland	P. G. Couchman, Mt. Pleasant	W. H. Megordon, Mt. Pleasant
Howard	C. W. Rainy, Elma	W. G. Doss, Cresco	P. A. Nierling, Cresco
Humboldt	T. G. Herrick, Gilmore City	Beryl F. Michaelson, Dakota City	I. T. Schultz, Humboldt
Ida	E. H. Heilman, Ida Grove	J. B. Dressler, Ida Grove	R. E. Underriner, Holstein
Iowa	D. A. Paulsen, Victor	I. J. Sinn, Williamsburg	C. F. Watts, Marengo
Jackson	F. J. Swift, Jr., Maquoketa	L. B. Williams, Maquoketa	
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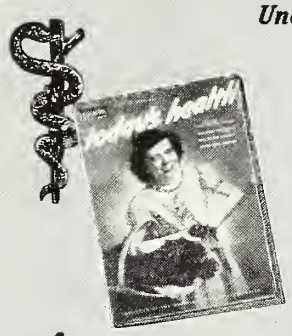
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THE DOCTOR IN COMMUNITY AFFAIRS

A number of years ago the chain stores got the reputation of not being interested in the towns they served. True, they sold good groceries, or clothes or shoes. They sold them at prices the customers liked. But they let matters stop there, and in the end they paid for it! Rightly or wrongly, people began to say that "the chains" took all the profits they could get out of a town and put nothing back in return.

Today their ordeal by anti-trust suit and oppressive legislation seems about at an end, but this result has been brought about by hard and intelligent work to win back the public approval they almost lost.

Perhaps there is a moral in that story not only for businesses like mine, but for you in the medical profession as well. We made our own survey among the secretaries of more than 150 Chambers of Commerce throughout New York State to determine their opinions on physicians as factors in community life.

They gave you high marks as individual doctors, but, rightly or wrongly, they said they thought you drag your heels when it comes to taking part in community affairs.

Fewer than a fifth of them—less than 20 per cent—said they thought that doctors were sufficiently active in any sort of community affairs in their towns. Here are some quotes. "As a group, the lack of community interest is amazing." "Some few are outstanding community leaders. The majority seem to consider that membership in the country club discharges their community obligations." "With all respect to the medical profession, they live too much within their own sphere. Many feel that the community needs them rather than that they need the community, and therefore the affairs of the community and its welfare and future are no concern of theirs." "When the doctor has a problem—improved or enlarged hospital, socialized medicine, etc., he expects the community to rally round him. The community is entitled to reciprocity."

Let me say parenthetically that I've seen comments just as sharp on questionnaires regarding my own company and found them just as disturbing as I know you find these.

By and large, these folks seem to recognize your problem, but they don't believe that emergencies and a busy schedule are valid reasons for avoiding civic work. They believe that doctors can and should find time to sit on committees and boards.

When eight out of ten in a key group say they do not feel you take enough part in the affairs of your town, I believe you should listen—and think.

—Kennerly Woody, vice-president, New York Telephone Company, in MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, July, 1956.

ROSTER OF IOWA PHYSICIANS IN MILITARY SERVICE

As of August 10, 1956

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Bateman, R. D., Iowa City
(Keesler Field, Mississippi) .....Capt., U.S.A.F.
Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego, Calif.) .....Lt.(j.g.), U.S.N.R.
Day, R. T., Hampton
(18th THC Hospital, APO 123, New York)
.....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Dieckman, M. R., Grundy Center
(Great Lakes, Illinois) .....Lt. (j.g.) U.S.N.R.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Elmer, Norman J., Strawberry Point .....U.S.N.
Gleeson, J. J., Vail
(Fargo, North Dakota) .....U.S.N.
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(Silver Spring, Maryland) .....Capt., A.U.S.
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(Navy Center, Omaha, Nebr.) .....U.S.N.
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(Grosse Isle, Michigan) .....N.A.S.
Johnston, T. L., Iowa City
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Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
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Marme, George W., DeWitt .....U.S.A.F.
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(Deep Sea Divers, Naval Gun Factory, Washington, D. C.) .....Lt., U.S.N.

PEDIATRICS POSTGRADUATE COURSE

The Department of Pediatrics at SUI will conduct a postgraduate course in conjunction with the meeting of the Iowa Pediatrics Society, in Iowa City on Septembor 18 and 19.

On Tuesday afternoon, Dr. Harry Bakwin, professor of pediatrics at New York University and president of the American Academy of Pediatrics, will discuss behavior problems. Dr. Robert Parrott, director of the Children's Hospital in Washington, D.C., will talk on common epidemic virus infections. And Dr. Kenneth Wessels, professor of pedodontics in the SUI College of Dentistry will speak on the relationship between dental and medical problems in children.

On Wednesday morning, the presentations will concern allergy. Dr. Walter Kessler, of Columbia University, will be guest speaker. On Wednesday afternoon, there will be a clinic type of session dealing with children having various types of neuromuscular disorders.

All interested physicians are invited to attend.

TWO POSTGRADUATE COURSES AT OMAHA

The College of Medicine of the University of Nebraska will conduct a short course on "Current Concepts in School and Community Health" on September 6, and one on "Electrocardiography" on October 1-4, in Omaha.

Some of the principal topics to be taken up at the conference on school and community health are (1) athletic injuries and their prevention; (2) technics for testing vision and hearing; (3) follow-up procedures and use of community resources; and (4) food-poisoning epidemics. The guest

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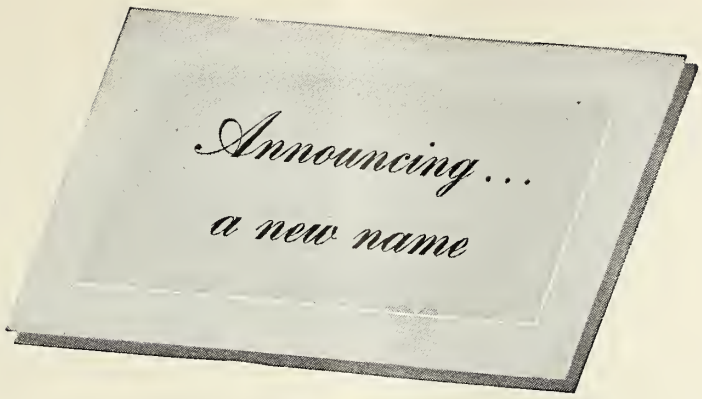
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speaker will be Dr. D. A. Dukelow, consultant in health and fitness of the AMA.

The guest speakers for the short course in electrocardiography are to be Dr. Robert A. Helm, of the University of Cincinnati, and Dr. Robert P. Grant, of the National Heart Institute, Bethesda, Maryland. For further information, physicians are invited to address the Director of Postgraduate Affairs, University of Nebraska College of Medicine, 42nd & Dewey Avenues, Omaha 5.

TRANQUILIZER HELPS ALCOHOLICS

A tranquilizing drug, meprobamate ("Milltown" —Wallace) palliates the difficulties that alcoholics experience after heavy drinking episodes, according to an article by Dr. S. E. C. Turvey, of Vancouver, in the June 1 issue of the CANADIAN MEDICAL ASSOCIATION JOURNAL. His report calls the drug "a safe, not habit-forming relaxant . . . more satisfactory for relaxation of the alcoholic patient than the barbiturates."

In one series of 23 "acutely inebriated" patients treated at Shadel Sanitarium, Seattle, the drug was given in two strengths. Those on the milder dose were said to be "definitely improved since they were able to ingest fluids and even food remarkably well, and became mentally clear with greater rapidity than had been the experience on other occasions. However, with this dose gross tremors were still evident and the patients complained of 'inner shakes' and depressions." Patients on the stronger dosage, however, are reported to have shown remarkable improvement. Tremors, anxiety, agitation and craving for alcohol were all relieved, and all the patients slept soundly during the afternoon and throughout the night. In another series, 51 alcoholics who had been on hospital treatment for two weeks were given meprobamate for use at home. Forty-eight reported relief from nervous tension, restlessness, shakiness, etc. No side effects were reported in the entire series, except for a mild rash in two patients.

PHYSICAL EXAMINATIONS OF DOCTORS

Chest x-rays and electrocardiograph tracings taken of physicians who visited one of the exhibit booths at the AMA meeting in Chicago last June revealed a rather heavy incidence of pathologies. Most remarkably, 58 (6 per cent) of those who were x-rayed had suspected tuberculosis.

965 CHEST X-RAYS

Suspected Tuberculosis	58	6.0 per cent
Cardiac Findings	42	4.3 per cent
Other Pathology	59	6.1 per cent
Negative Findings	861	83.5 per cent

1083 ELECTROCARDIOGRAMS

Abnormal ECG	97	10.0 per cent
Borderline ECG	49	5.1 per cent
Negative Findings	821	84.9 per cent
Survey Sheets not Returned	116	

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Journal of the IOWA STATE MEDICAL SOCIETY

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MEDICAMENTA VERA

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A Mental Health Program for Iowa

CHARLES C. GRAVES, M.D.

MARLBORO, NEW JERSEY

DEVISING A MENTAL HEALTH program for Iowa involves varied and complex difficulties. The elements of the problem have differing origins and developments, and there are conflicting interests that are hard to resolve. However, since public and professional interest has increased tremendously during the past few years, it should by no means be impossible to work out a practical plan that will permit the use of existing resources in an altogether satisfactory way.

THE PRESENT SITUATION

Let us begin by reviewing briefly the situation as it is today. The oldest group of institutions consists of four mental health institutes that house approximately 5,300 mental patients. In keeping with the spirit of the times in which they were built, they are on farms at some distance from the centers of population, one in each quarter of the state.

In addition, 83 counties operate farm-type county homes that accommodate some 2,300 patients. From the county home fund established by the state in 1949, the counties are paid three dollars per week for each of those patients. The patients housed in the county homes are usually transfers from the mental health institutes, but they may be direct admissions. The state fund has accelerated the movement of patients to the county homes and has stimulated both the building of new homes and the enlargement of some others of them.

Private mental hospitals provide another 500 beds. The 1,600 beds at the Veterans Facility in Knoxville are shared by Iowa and several other states. Only a small percentage of the beds in the Veterans Hospital at Iowa City are set aside for psychiatric cases. Anamosa provides 153 beds for the criminal insane. General hospitals are now providing beds for mental patients, their number probably being over 100 at the present time.

Within the eastern half of the state are nine mental health centers that are supported by federal, county and community funds.

The Psychopathic Hospital, at Iowa City, functions as an educational and research center, and through its director it administers the federal funds that come to it as Iowa's mental health authority. A center for emotionally disturbed children is, I believe, getting under way at the University.

One county hospital maintains an outpatient mental hygiene clinic and provides 23 beds for diagnosis and short-term treatment. County care programs make it possible to place many harmless patients—particularly the older ones—in nursing and boarding homes.

Approximately 30 psychiatrists are in private practice in Iowa, with the majority of them being in the eastern half of the state.

With interest in this problem at an all-time high and with an accelerated tempo in modern affairs, we must keep an open mind for whatever changes may be necessary to assure our giving proper services to the psychiatric patient.

On many sides, we hear the cry that mental disease is our number-one health problem. At conferences of all kinds, we are urged to do something that will whittle this problem down to size. A four-pronged approach (1) prevention, (2) early treatment, (3) training, and (4) research, is offered. These programs are expensive in terms of time, money and personnel.

Iowa is not rich enough to scrap what it has inherited, and even if that were feasible, there are many instances in which it would be unnecessary. Because the problem is great and the state's resources are limited, its dollars must be wisely and efficiently spent. Indeed they will have to do double duty.

In moving forward, Iowans must avoid an attitude that a Des Moines minister condemned in a recent sermon, saying that hell is peopled by those who believed that every tub should stand on its own bottom. Because of its roundness, he pointed out, a tub can make no more than few and slight contacts with the other tubs that are around it, and so must remain isolated and alone. Whatever we do—in other words—we must always work together for the common good.

This point of view was expressed in 1954 at a number of regional midwestern conferences on mental health held in Indianapolis, Minneapolis and Chicago. The conferees felt that only as they reached out and only as they shared and integrated resources could they hope to make a dent in their tremendous problem.

If it be necessary for the states to develop regional programs—and such are already actualities in the Southern states—and if it be proper for the federal government to call on the states and, in turn, for the states to seek and receive federal aid, wouldn't it be equally important for the intrastate agencies, whether in Iowa or elsewhere, to work

Early this year, Dr. Graves gave up his post as director of mental institutions for the State of Iowa to take charge of teaching, training and research at one of the state hospitals in New Jersey.

together, and not be tubs standing isolated on their respective bottoms? I believe that it is. I sincerely think that integration is the keystone of the arch for Iowa's mental health program!

Voluntary cooperation can accomplish a great deal, but if the needs of each patient are to be met with a minimum of effort and expense, an agency must be established that can offer new avenues of communication and coordination.

NO NEED FOR A COMPLETELY NEW START

It will require considerable study to decide what agency is best for Iowa. The Mental Health Clearing House of the Council of State Governments, in Chicago, has collected data on this subject from every state in the union, and has discussed the advantages and disadvantages of the various types of administrative control. The Iowa Code has many fine laws on this subject, and a study of it will indicate what changes and combinations will have to be made. An example of how previous legislation can be used and still be sufficient for the purpose has to do with commitment procedures. The Iowa Code states that two physicians may commit a patient to a private mental institution. This is a very fine piece of legislation. It could be extended to cover all commitments. The county commissions, since they are parts of district courts, could be designated as the bodies issuing the final orders of commitment and for determining financial responsibility. With this arrangement, admission to a mental institution would become a medical matter, as it should be, and still the necessary machinery—the county commissions of insanity and the district courts—would remain for protecting the legal and financial rights of the patient as well as those of the public.

Within the last 25 years, Iowa has had a number of studies, all or part of which have concerned its mental health needs. The Brookings Institute, in 1932, made a report on the entire state government. The U. S. Public Health surveys in 1937 and 1946 centered on mental health needs. The Little Hoover Commission's report on state government reorganization covered the entire government. Several of the recommendations that were proposed have already been enacted into law.

These reports should all be carefully read. They go into many details which space does not permit my reviewing here, but if my memory serves me right, they all recommend a unified, coordinated approach to our mental health needs.

As regards the administrative set up of any department, the preamble of the Little Hoover Commission's report says that policy and semi-judicial opinion should be formulated by plural-member boards, but that the carrying out of that policy should be entrusted to an administrator who is responsible for his actions to the board that employs him.

If proper study has determined the nature of this integrative machinery, whether it be a new department or a modification of a previously existing one, these functions will be kept separate.

The policy-making functions will be placed in the hands of a part-time group consisting of not more than nine well-informed and public-spirited members. They will have been appointed by the governor for staggered terms, and approved by the senate. If corrections and welfare are to be parts of this department, they will have their own properly-trained administrators.

For the moment, we shall confine our attention to the mental health field. The policy-making board will appoint a competent psychiatric administrator who will carry out the board's wishes according to the laws of the state.

Around this administrator will cluster those department heads who are needed for administering the varied needs of the department. The number of them should be kept to a minimum, and their duties should be related to the other state functions so that communications and coordination will be relatively easy. There should be no tubs sitting on their isolated bottoms at the central office.

Good administration is important, but it will not be the motivating force that will carry through the program. Only an alert and understanding public can do that. For that reason it is highly important that there should be a policy-making board that can keep its fingers on the public pulse. It has been found that there is a need for policy making not only at the state level but also at the local ones. In some places, the local groups are known as mental health councils. Their function is to develop a grass-roots interest in mental health, and when this interest has appeared, to provide a properly prepared program so that the needs of the community can wisely and efficiently be met. These councils are usually appointed by local officials with the approval of the central department. In this way, the local and state resources are tailored to meet the needs of an overall program.

NEW PSYCHIATRISTS CAN BE ATTRACTED TO IOWA

Early diagnosis and treatment are the backbone of any mental health program. That's true of any health program. At the community level, the private practitioner will be the mainstay. We know that psychiatrists are in short supply, but it is certain that with proper inducements more can be attracted to Iowa. Recruiting them will be a joint responsibility of the State Medical Society and the local mental health councils. With more psychiatrists in private practice, the private patient will receive prompter service, and mental health centers will have greater psychiatric coverage.

For those sections of the state which are not populous enough to attract psychiatrists, the department will have to maintain mobile psychiatric units which will work through the present outpatient clinics of the mental health institutes and

through whatever partial support the communities may be able to give.

There must be hospital beds for those who cannot be treated at the outpatient level. General hospitals must be encouraged to provide more beds for the mentally ill. One way in which this encouragement can be given is by the state's matching community funds to make up the difference between the actual cost and whatever the patient can afford to pay for diagnostic procedures and short-term treatment. This type of subsidy could be used for the private mental hospitals, if they have beds available.

Since for some time to come the bulk of our patients will use the mental health institutes, those institutions can no longer be allowed to remain the step-children of modern medicine. If early and intensive treatment is good for cancer, it is good for mental disease. The problems of our mental health institutes must be given top priority, and one of their biggest difficulties is the obtaining of professional personnel—particularly physicians. American medicine tells us that there is no shortage of physicians, but only a faulty distribution. If that is true, what can we do to bring more physicians to the mental health institutes?

As Bartemeier and Appel have said in their guest editorial in the February 4, 1956, issue of JAMA, concerning the Joint Commission on Mental Illness and Health, Inc., we likewise may not limit ourselves to present practices, customs and traditions. New perspectives, approaches and technics are needed if our public mental hospitals are to be made to stand on their own feet.

It was such a spirit, a few years ago, that set up a plan under which private psychiatrists were to be permitted to bring their patients to a mental health institute and to treat them there as they would treat them elsewhere. As yet, that plan has not gone into operation. This is a procedure that we should push, not only for the psychiatrist but also for the general practitioner. There are many things that a general man can do in a mental health institute, if a way is opened for him. The staffs of the institutes are now using various sorts of specialists as consultants, and I believe that they could employ them profitably on a much wider scale.

BILLING PROCEDURES SHOULD BE CHANGED

There is one approach which I believe would go a long way toward remedying the psychiatrist shortage. If the various agencies—in most instances it would be the counties—could be persuaded to change their methods of paying for their patients, there would be more money with which to attract physicians. At present, the charge is the same for a new admission to a mental health institute as for a back-ward case of many years' standing. It makes no difference whether the patient has been admitted for intensive treatment or just for nursing care.

Several years ago, one of the mental health institute superintendents presented some interesting figures to a group of legislators. He showed that on certain wards the value of services from the standpoint of wages paid was $.15 per patient per day, and on other wards it was $1.50 per patient per day. Yet the counties made identical payments to the institutes for patients in each of the two groups. If, as general hospitals do, the mental health institutes were to charge the counties on the basis of what their respective patients actually were receiving, they could be in a position to attract physicians to settle in them and in the areas around them. The new men could treat not only their private patients but the county patients as well.

RESIDENT TRAINING AND ACCELERATED THERAPY

Until some of these changes have been made, the institutes must depend upon more or less inadequate resident staffs, For years, Iowa City has been training professional personnel, but only a few have gone from there to the mental health institutes. If the institutes were able to pay adequate salaries, they could attract senior personnel in all categories, and those men, in turn, could train the younger employees and supervise the internes, residents and field workers who would come to them from the University and from other professional schools.

An adequate staff would mean a stepped-up treatment program. This, in turn, would mean a greater turnover of patients, and that would remove the pressure for a great increase in the number of beds.

Some of the buildings at the Iowa mental health institutes are antiquated and require replacement. The new construction must be in the intensive treatment field. In many places it has been demonstrated conclusively that early intensive treatment, though more costly in the beginning, is less expensive in the long run. Ninety days of treatment at $15 or $20 per day per patient is much cheaper than three or four years of custody at $3 or $4 per day per patient. By building those intensive treatment units at the mental health institutes now, Iowa can move more patients to their homes and can learn what percentage of patients will require long-term and nursing-home care. Only then can the state's minimum future needs be discovered.

Recently, St. Elizabeth's Hospital, in Washington, D. C., made this approach a reality when it dedicated a new 400-bed pavilion costing $6,000,000 and known as the Dorothea Lynde Dix Pavilion.

The present structures at the Iowa mental health institutes can be utilized for long-term care. They should continue to be closely related to county and nursing homes. Each patient could be screened in the intensive-treatment unit and then placed in the section that best met his needs. The younger patients would remain in the intensive treatment unit, and it is estimated that 80-85 per cent of those under 60 years of age are enabled to return home

after 90 or fewer days of the sort of treatment that they receive there. All of the different divisions, whether at the mental health institutes or in the patients' home communities, would be so related to the treatment facilities that if, at any time, a patient needed additional treatment, he could be returned for it.

One does not have to look very far ahead to see that the more populous counties in the state will eventually become self-sufficient in the care of their mental patients. The progress that they are making toward that goal will be speeded up if the state can develop mental health financial credits such as it now provides for schools and roads. With matching credits, certain counties would no longer need to use the mental health institutes. By treating their patients at home, they could get them under treatment sooner and also could provide them a more comprehensive after-care program, thus reducing the number of relapses. As fewer counties used the mental health institutes, there would be more space and facilities for the use of the smaller counties that still needed them. Thus, Iowa's mentally ill would receive the care they needed, whether they came from small or from large communities.

RESEARCH CAN BE INSTITUTED

Our treatment must be backed up by sound research. It is only through the inquiring mind that has leisure and opportunity to develop and test its insights that new procedures are brought into being. Like all other phases of medicine, psychiatry can move ahead only if it attracts men and women to do this basic work. Research is time-consuming and requires special talents. Joint activities must be set up by the University and the mental health institutes under the direction of a coordinator of research. Thus duplication and unnecessary overlapping can be avoided, and a preparation will be made for the coordination of effort that is eventually to take place between the states and the national government.

This stepped-up program will require increased appropriations. Without adequate funds, the program will stumble and falter. One of the most important men in this new set up will be the business or financial officer. If, by the way that he supervises the spending of departmental funds, he can inspire the trust and confidence of the legislators, they will be all the more willing to appropriate money that can be used for matching that of local units and the federal government. If the department doesn't have a certain amount of budgetary mobility and freedom, many aspects of this program will never be able to get off the ground.

If the public learns that these increased appropriations are to be shared equitably by the various taxing units, the money is more likely to be forthcoming. At present, the counties pay the operating costs of the mental health institutes. The state pays for the capital improvements, pays for the care of non-county residents and contributes $3 per week for each patient in the county homes. It will be necessary for the state to assume a larger share of the burden.

At the present time, each county assumes the responsibility for collecting the costs of care from the relatives of the patient. It would be simpler if there were a single collecting agency at the state level. Policies and procedure could be standardized, and all families could be treated alike in the matter of payments, regardless of their places of residence. Further, the money obtained from relatives could be put in a separate fund to be used for special treatment and research.

NONE OF THESE ARE BRAND NEW IDEAS

Is this program that I have outlined too ambitious for Iowa? Is it too idealistic, complex and expensive? I do not believe that other states are any less tax conscious than Iowa, or any more idealistic, but somehow they have been convinced of the magnitude of the mental health problem and have come to realize that half-way measures are not enough.

In Kansas, adequate personnel has increased the patient turnover, and by reducing the overcrowding, it has obviated the necessity for an extensive building program. Nebraska has integrated its university psychiatric facilities with its mental hospitals so that they can share a joint research and training program. Illinois has set up a state collecting agency. The funds obtained from relatives for the care of patients are placed in a separate account to be used only for special treatment, training and research. New York has its local mental health councils that receive matching funds from the state.

I could give you more examples, for practically everything that I have mentioned as part of a future program for Iowa can be found at work in some other part of the United States.

KENNY POSTGRADUATE SCHOLARSHIPS

The Sister Elizabeth Kenny Foundation announces a program of postdoctoral scholarships to promote work in the field of neuromuscular diseases. These scholarships are designed for scientists at or near the end of their fellowship training in either basic or clinical fields concerned with the broad problem of the neuromuscular diseases.

Each grant will provide a stipend for a five-year period at the rate of $5,000 to $7,000 per year, depending upon the scholar's qualifications. Candidates from medical schools in the U. S. and Canada are eligible.

Inquiries regarding details should be addressed to Dr. E. J. Huenekens, Medical Director, Sister Elizabeth Kenny Foundation, 2400 Foshay Tower, Minneapolis 2.

Legal Problems of Artificial Insemination

ROBERT B. THROCKMORTON

DES MOINES

SOME 7,600 REPLIES to a 1941 survey of 30,000 physicians reported at least one pregnancy by artificial insemination for each of 9,489 women.[1] The legal rights, obligations and status which such a widespread practice creates, however, are quite unclear, for there has been little litigation and no relevant legislation. For those reasons, what follows is tentative.

ARTIFICIAL INSEMINATION, HUSBAND

AIH is artificial insemination with the husband's semen. Since a child so produced is the offspring of married partners, it is legitimate. There is obviously no question of adultery, and there is no reason why the rights, obligations and status of the parents and the child are any different from those of parents and child by lawful normal conception.

But the foregoing statement should contain one reservation. Suppose the husband is fertile but impotent (unable to perform sexual intercourse). In Iowa, impotence at marriage is grounds for annulment.[2] When a marriage is annulled for impotence of the husband, "any issue of the wife shall be illegitimate."[3] Is an AIH child therefore illegitimized if the mother annuls her marriage? In effect, an English case so held.[4] But since the Iowa statute was written before AIH was practiced, the statute could have been intended to do no more than recognize what the facts at that time had to be, when it bastardized the issue of such a wife. If it is established, nowadays, that the child is the impotent father's by AIH, the Court might, instead of applying the statute literally, either bar an annulment on grounds that the wife, with knowledge of her legal rights and of the facts, had waived the impotence by consenting to artificial insemination, thus approving the marriage,[5] or construe the words "issue of the wife" to mean, as was obviously intended, "issue of the wife and another than her husband."

ARTIFICIAL INSEMINATION, DONOR

AID is artificial insemination in which the donor is not the husband. It poses a number of unsolved questions.

1. *Is AID adultery?* "Sexual intercourse between two persons not husband and wife, either one of whom or both of whom are married, constitutes adultery under the statute. . . ."[6] "Sexual intercourse" means sexual or carnal connection; coition; and necessarily includes penetration.[7] Lacking that element of the crime, AID should not be held adultry, especially since criminal statutes are strictly construed.

A law forbidding adultery, however, "provides a sanction against the alienation of affection, the breach of marriage vows, the risk of burdening a husband with a spurious heir, the social stigma resulting from marital infidelity, the loss of any economic values, and, eventually, the extinction of the race through the breakdown of the family system."[8] AID with the husband's consent results in none of these harms.

Were AID with husband's consent held adultery, moreover, the child would seem to be bastardized. In Iowa, however, a man who marries a woman whom he knows to be pregnant by another "is regarded by the law as adopting into his family the child at its birth." The presumption of legitimacy becomes conclusive, and no bastardy action will lie against the real father for support, for the husband "ought not to be permitted to disturb the family relation, and bring scandal upon his wife and her child, by establishing its bastardy, after he has condoned the wife's offense by taking her in marriage."[9] The analogy between this situation and AID with the husband's consent is so clear that our Court might well hold at least that neither spouse could dispute the legitimacy of the AID child. Hence, the husband could not claim adultery.

The foregoing considerations are probably strong enough to warrant the assertion that AID with the husband's consent would not be held to be the crime of adultery in Iowa. Since a criminal prosecution for adultery must be on complaint of a spouse,[10] no such prosecution is likely where AID has been performed with the husband's consent. The question could arise in civil matters, e.g., divorce, inheritance, etc. The few cases, none criminal, which have dealt with AID in other jurisdictions, however, have split on the question of adul-

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1. Seymour, F. I., and Koerner, A.: Artificial insemination; present status in United States as shown by recent survey. J.A.M.A., **116**:2747-2749, (June 21) 1941.
2. Sec. 598.19(2), *Code of Iowa* (1954).
3. Sec. 598.22, *Code of Iowa* (1954).
4. R.E.L. v. E.L. (1949) p.211. 1 all E.R. 141.
5. *Slater v. Slater*, (1953) p.235, 1 all E.R. 246 (England).
6. *State v. Anderson*, 140 Iowa 445, 448, 118 N.W. 772 (1908).
7. *State v. McCall*, 245 Iowa 991, 63 N.W. 2d 874 (1954).
8. *The Socio-legal Problems of Artificial Insemination*, 28 Ind. L.J. 620, (note 1953).
9. *State v. Shoemaker*, 62 Iowa 343, 344-345, 17 N.W. 589 (1883).
10. Sec. 702.1, *Code of Iowa* (1954).

tery.[11] Thus, no definite assurance is possible as to the law in Iowa.

Where AID is without the husband's consent, the vital element of adultery—viz., sexual intercourse—is lacking. Hence, it is still illogical that such AID should be considered adultery. However, AID under such circumstances may produce most of the harms which adultery does. Whether the production of a spurious heir be criminal or not, it could easily be held a fraud on the husband and contrary to public morals. The physician, the wife and perhaps the donor, if they know of the husband's failure to give his consent, could then be guilty of criminal conspiracy, for conspiracy to do an unlawful non-criminal act may itself be a crime.[12]

If AID is adultery or any other crime, the physician and donor, as well as being open to a charge of criminal conspiracy, could be indicted, as principals with the wife, for aiding and abetting the crime.[13]

2. *Is AID criminal conversation?* "Criminal conversation" is the name for a civil (non-criminal) action for damages for adultery. If the husband has consented to the adultery, he can recover no damages.[14] Therefore, if the husband had consented to AID, even if AID be held adulterous, he could recover nothing in an action for criminal conversation. If he had *not* consented to the AID, it would seem that, for the fraud upon him, he could recover damages against the participants, including the physician.

3. *Is AID grounds for divorce?* If AID is adultery, it is grounds for divorce.[15] But by consenting, the husband would seem to have condoned the offense just as he may condone adultery (i.e., forgive by continued cohabitation after knowledge).[16] If the husband did *not* consent and if AID *is* adultery, the husband may divorce for adultery. If the husband did *not* consent and AID is *not* adultery, he might well make out grounds for divorce for inhuman treatment or a showing that such a violation of marriage vows affected his health.

4. *Is the AID child legitimate for purposes of inheritance, etc.?* As has already been noted, it has been held that one who knowingly marries a woman pregnant by another cannot bastardize the child, and it is thus suggested that as between consenting husband and wife, an AID child is legitimate. The holding specifically does not legitimize the stranger's child by antenuptial conception for purposes of inheritance.[17]

In Iowa, subject to the dower and homestead rights of the surviving spouse, a decedent's property where there is no will descends "to his children" or to their heirs.[18] "If the intestate leaves no issue," the descent is otherwise.[19] The term *issue* means lawful lineal descendants.[20] An AID child is not the husband's lineal descendant and is not therefore his issue. By the same token, it is not "his" child. It is unlikely, therefore, that such a child, in the absence of an adoption, could inherit from the husband. The husband could specifically will property to such a child, however. But a general bequest to his children or issue would probably not include the AID child.

Whether legitimate or illegitimate, the AID child can inherit from its mother. If illegitimate, and if paternity has been proved or has been recognized by the donor, the AID child might inherit from him.[21]

5. *Is the husband legally bound to support the AID child?* Both husband and wife are liable for support of the children.[22] Where a man has received into his family the children of his wife by a former marriage, he stands in place of a parent to them and is liable for their support.[23] The husband who has consented to AID is in an analogous position and should be liable for support, especially since his consent was responsible for the child's existence.

A husband not consenting to AID has been wronged, and unless he forgives the wrong and takes the child into his home as a family member, he ought not to be liable for support. Possibly the donor might then be held liable for support.

6. *What are the rights as to custody upon divorce?* In a New York case, the wife set up AID with husband's consent to bar any right in the husband to any custody on divorce, on the theory that he was not the child's father. The Court denied her claim on the grounds that the husband had adopted or semi-adopted the child and that his consent to AID had legitimatized the child except as to property (inheritance) rights.[24]

Since under Iowa law the paramount consideration in custody questions is the welfare of the child,[25] the Court would seem to be free to award

11. *Doornbos v. Doornbos*, (Cook Co., Ill. Sup. Ct. (1954) holding AID with husband's consent adultery and husband had no right to child on divorce. *Orford v. Orford*, 49 Ont. (Canada) L.R. 15, 58 DLR 251 (1921) dictum (statement not necessary to decision and therefore weakened as precedent) to same effect. *Strnad v. Strnad*, 190 misc 786, 78 NY S 2d 390 (1948) dictum child legitimate. *Hoch v. Hoch*, dictum AID birth not sufficient evidence for divorce for adultery (unreported Illinois lower court).
12. Sec. 791.1, *Code of Iowa* (1954); *State v. Hardin*, 144 Iowa 264, 120 NW 470 (1909).
13. Sec. 681.1, *Code of Iowa* (1954).
14. *Morning v. Long*, 109 Iowa 288, 80 NW 390 (1899).
15. Sec. 598.8, *Code of Iowa* (1954).
16. *Shaffer v. Shaffer*, 181 NW 261 Iowa (1921).
17. *Shaffer v. Shaffer*, 181 NW 261 Iowa (1921).
18. Sec. 636.31, *Code of Iowa* (1954).
19. Sec. 636.32, *Code of Iowa* (1954).
20. Sec. 4.1(7), *Code of Iowa* (1954).
21. Sec. 636.45, *Code of Iowa* (1954).
22. Sec. 597.14, *Code of Iowa* (1954); *Johnson v. Barnes*, 69 Iowa 641, 29 NW 759 (1886).
23. *Rule v. Rule*, 204 Iowa 1122, 216 NW 629 (1927).
24. *Strnad v. Strnad*, Note 11, *supra*.
25. *Voy v. Voy*, 241 Iowa 673, 41 NW 2d 869 (1950).

the child to the husband or give him other custodial rights consistent with what it felt to be the child's best interests.

7. *Can anyone prove the AID conception?* When a child is born in wedlock, he is presumed legitimate.[26] The presumption may be rebutted by clear, satisfactory, convincing and competent evidence that the husband was impotent; was entirely absent from the mother; was entirely absent at the period during which the child must have been begotten; or was present only under circumstances showing clearly that he had no sexual relations with the wife.[27] Presumably, equally clear proof of complete sterility would rebut the presumption also. But if the husband had access to the wife and was not completely sterile or impotent, it would be unlikely, despite admitted AID, that the presumption of legitimacy could be overcome.[28] Further, although admissions as to illicit relations by a spouse may be admissible and, therefore, so might declarations as to AID, neither the declarations nor testimony of a spouse as to non-access can be held admissible.[29]

The above difficulties of proof remain even though the patient's heirs might have the right to force the physician to testify as to AID after his patient's death in some proceeding involving an heirship question.[30] They also remain even though a non-consenting husband might be able to force the physician to testify.[31]

8. *What is the physician's responsibility?* As far as AIH is concerned, the ordinary malpractice rules apply. Therefore, even if the child is defective, provided that the physician "exercises due diligence, uses ordinary knowledge and skill and his best judgment, and respects the confidence of his patient, he will not be liable for damages. . . ."[32]

In AID cases, the physician may be liable for civil damages and perhaps criminal prosecution, as set out above, at least if AID is performed without the husband's consent. If the husband has consented to AID, the physician assumes a degree of responsibility in selecting the donor, and the limits of that responsibility cannot be stated.[33] What constitutes proper investigation of the donor's heredity, physical condition and other relevant factors has not been determined.[34] Nor is it certain to what extent the wife and husband may, by contractual means, assume the risk of the physician's selection and relieve him of liability.[35]

26. *Craven v. Selway,* 216 Iowa 505, 246 NW 831 (1933).
27. Note 26 *supra.*
28. Note 8 *supra.*
29. *Wallace v. Wallace,* 137 Iowa 37, 114 NW 527 (1908).
30. *Boyles v. Cora,* 232 Iowa 822, 6 NW 2d 401 (1942).
31. The physician-patient privilege does not extend to communications in pursuit of a criminal object. *State v. Smith,* 99 Iowa 26, 68 NW 451. Possibly the privilege would not cover communications for an unlawful though non-criminal act.
32. AMA Bureau of Legal Medicine and Legislation: "Medico-legal aspects of artificial insemination. J.A.M.A., **147**:250-253, (Sept. 15) 1951.
33. *Ibid.*
34. *Ibid.*

SUGGESTIONS

In all AID cases, the physician should have a joint written consent from the wife and husband. Such a consent should (1) specify the qualifications desired in the donor; (2) authorize the artificial insemination from such donor; (3) relieve the physician of any warranty or guarantee as to the donor's qualifications; (4) require the physician to make such investigation of the donor and his qualifications as the physician deems reasonably necessary; (5) permit the physician to keep secret the donor's name and other information in respect to him; (6) permit destruction of the records concerning the donor; (7) contain a covenant not to sue the physician and to save him harmless; and (8) so bind the husband and wife, their heirs, executors and administrators.[36] It also seems desirable that the agreement should contain a clause validating and keeping in force the remaining portions of the consent, in the event that any clause or section should be held to be invalid. The physician's attorney should be given the task of preparing the document, but he should be given no names, for he has no privileged attorney-client relationship with the patients.

The physician is well advised, further, to counsel his patients to consult their own attorney in respect to the legal aspects of AID, so that they may be informed of the uncertainties that are involved.

Consideration may be given to the adoption of the child by the husband. Since the parent having responsibility for the care and maintenance of the child is the mother, her consent alone should be necessary.[37] The Court can, and usually does, waive investigation of the home and waive the waiting period of residence (12 months) in cases where the adopting parent is married to the natural parent.[38] Hearings are private, and the Court has discretion as to the notice thereof.[39] Adoptive information cannot be disclosed except by the adopting parents or the child, except by Court order.[40]

Adoption has the merit of making the relationship and inheritance rights the same between an adoptive parent and an adopted child, as between a parent and his natural child.[41] Hence, it appears to resolve the question as to the child's legitimacy and right to inherit vis a vis the husband. Adoption has the disadvantage of making a record of the AID, although the donor's name would probably

35. *Ibid.*
36. *Ibid.*, the suggested form being taken from Regan, Louis J.: Doctor and Patient and the Law, Second Edition. St. Louis, C. V. Mosby Co., 1949.
37. Sec. 600.3, *Code of Iowa* (1954).
38. Sec. 600.2, *Code of Iowa* (1954).
39. Sec. 600.4, *Code of Iowa* (1954).
40. Sec. 600.10, *Code of Iowa* (1954).
41. Sec. 600.6, *Code of Iowa* (1954).

not need to be disclosed.[42] If an AID child is illegitimate, the adoption does not destroy its possible right to inherit from the donor, if paternity is proved or recognized during the donor's life.[43]

CONCLUSION

The usual AIH case in which there is no impotence poses no serious legal problems. AID with the husband's consent raises novel questions as to the legality of the procedure, the status and rights of the husband and child, the legitimacy of the child, and the child's right to inherit. The few cases so far decided are in conflict on the answers to such questions. No Iowa decisions on AID have been found. It is more likely than not that AID with the husband's consent would not be held adultery in Iowa. It is more likely than not that the AID child would be held legitimate as to the husband, but that it would have no right of inheritance as his child in the absence of an adoption.

The physician should make sure that the husband and wife are made cognizant of the legal uncertainties in AID. The physician's liability being uncertain, he should protect himself by securing a proper written consent from the husband and wife.

Obviously, AID without the husband's written consent should never take place.

42. Sec. 600.1, *Code of Iowa* (1954), requires that the petition contain the child's name, but does not specifically require that names of the natural parents be given. It appears that the petition, like the consent, could state that the father is unknown.

43. Sec. 636.45, *Code of Iowa* (1954); *McKellar v. Harkins*, 183 Iowa 1030, 166 NW 1061 (1918).

PROGRAM

Conference of Presidents and Secretaries

OCTOBER 21, 1956

Hotel Savery Des Moines

9:30 a.m. Registration

10:00 a.m. Remarks of Welcome
Dr. W. L. Downing, President

10:10 a.m. Secretary's Report
Dr. R. F. Birge, Secretary

10:30 a.m. Report on Rural Health
Dr. S. P. Leinbach, Chairman, Subcommittee on Rural Health

10:45 a.m. Report on Blue Shield
Dr. T. D. Throckmorton, Chairman, Executive Committee, Iowa Medical Service

11:00 a.m. Medical Public Relations
Dr. O. N. Glesne, Chairman, Committee on Public Relations
"The Case of the Doubting Doctor" AMA film

11:40 a.m. Public Relations Techniques
Mr. Ray Stewart, Director of Public Relations

12:00 noon Luncheon

1:30 p.m. Address
G. W. Murphy, M.D., Asheville, North Carolina

(On May 1, 1956, at the Annual Meeting of the North Carolina State Medical Society, Dr. Murphy delivered an address entitled "A Small Leak Will Sink a Great Ship," on the various ways in which private medical practice is currently being infringed upon. It was exceptionally well received, and following its publication in the NORTH CAROLINA MEDICAL JOURNAL, *it has been very widely circulated.)*

2:00 p.m. Report on the Hospital-Physician Lawsuit
Mr. Philip Cless, Attorney

2:15 p.m. Report on Medical Service
Dr. C. V. Edwards, Chairman, Committee on Medical Service
Dr. W. C. Eller, Chairman, Subcommittee on Prepayment Medical Care

2:30 p.m. Report on Legislation
Dr. F. C. Coleman, Chairman, Committee on Legislation
Mr. R. B. Throckmorton, Legislative Counsel

3:00 p.m. Report on Mental Health Study
Dr. Paul Kersten, member, Governor's Committee on Mental Health

3:15 p.m. Discussion

3:30 p.m. Adjournment

In addition to county medical society presidents and secretaries, the councilors, deputy councilors, delegates to the ISMS, legislative contact men and public relations chairmen are requested to attend this Conference.

Scientific Articles

The Office Management of Diabetes

ARTHUR G. LUECK, M.D.

DES MOINES

From 1921 until nearly 1950, management of the new diabetic was invariably a hospital procedure, in accordance with a recommendation pioneered by the Joslin group, in Boston. Rigid control of the diabetic was established during a two to four-week hospitalization, after which an attempt was made to convert this discipline to suit the patient's home and work conditions. After World War II, however, hospital insurance and nationwide prosperity brought about a metamorphosis in medical practice. Hospital beds filled up and remained full, and only desperately ill patients were eligible for immediate admittance. Diabetics in acidosis sometimes qualified for this preferential treatment, but the average diabetic patient had to wait a week or two. In the practice of a specialist in diabetes, the resultant waiting list could reach a size sufficient to make a conscientious doctor uncomfortable, and finding some other means of handling the problem became imperative. Consequently, in 1949, I made a change in my method of managing both old and new diabetics. After the details had been worked out and applied, it became apparent that hospitalization of new diabetic patients was no longer essential.

The purpose of this presentation is to outline the methods that we have used for more than seven years in our office. It is not intended to imply that the system is infallible, or that it is superior to others. But it does work, and it is relatively simple.

FACILITIES, KNOWLEDGE AND SPECIAL EQUIPMENT

A résumé of the facilities, knowledge and special equipment is pertinent at this point. The specific laboratory needs are few. A blood sugar testing method available in one's own office suite is handy, but not imperative. It is sufficient that a reliable laboratory be nearby. Facilities for a complete urinalysis are usually available in one's own office suite.

A little special knowledge is in order when one undertakes to manage a volume of diabetics. It has been facetiously said that if a physician is to guide diabetics satisfactorily, he should know more about the disease than his patients do. The insinuation should not go unheeded. It is not rare for me to encounter an old-time diabetic, reared in the era of strictly-weighed diets, who displays a familiarity with food values that is far superior to my own limited knowledge. We need to have an acquaintance with the action-time of the available insulins. Unmodified or "regular" insulin is quick-acting, exerting its maximum effect in lowering blood sugar within four hours, and being dissipated within eight hours. Protamine zinc insulin is modified for the longest action. It drops blood sugar to the lowest level at about 18 hours, with a gradual return throughout 30 hours following the injection. The intermediate acting insulins are NPH, lente and globin. Their maximum effect occurs at 10 hours, and they are fully dissipated at the end of 24 hours.

A few items of equipment are needed for training new diabetics, and for refreshing established ones. The physician should select and become familiar with one of the manuals written for the patient. If he will recommend the manual of his choice to each patient and encourage her to manage minor details for herself, he can forestall a multitude of phone calls. (I shall use the pronouns *she* and *her* in speaking of the diabetic patient because female patients outnumber males almost two to one.)

Here are some of the manuals, in their most recent editions:

Joslin, Elliott P.: A Diabetic Manual, Ninth Edition, 315pp. with 55 illustrations. Philadelphia, Lea & Febiger, 1953. $3.00.

Bortz, Edward L.: Diabetes Control, 264pp. Philadelphia, Lea & Febiger, 1951. $3.50.

Pollack, Herbert, and Krause, Marie V.: Your Diabetes: A Complete Manual for Patients, Second Edition, 212pp. New York, Paul B. Hoeber, Inc., 1951. $3.00.

Tolstoi, Edward: Living With Diabetes, 90pp. New York, Crown Publishers, 1952. $2.00.

Rogers, Floyd L., and Leverton, Ruth M.: Your Diabetes and How to Live With It, 113pp., paper. Lincoln, The University of Nebraska Press, 1953. $2.50.

Beardwood, J. T., Jr., and Kelly, Herbert T.: Simplified Diabetic Management, Sixth Edition, 194pp. Philadelphia, J. B. Lippincott Co., 1954. $3.00.

Rosenthal, Helen, and Rosenthal, Joseph: Diabetic Care in Pictures; Simplified Statements With Illustrations Prepared for Use of Patients, Second Edition, 164pp. with 128 illustrations, 7 in color. Spiral binding. Philadelphia, J. B. Lippincott Co., 1953. $3.00.

For demonstration in the office, one needs samples of the equipment that is to be used by patients in their homes. We use the Tes-Tape or Clinitest sets for patients' measurement of urinary sugar; Acetest tablets for urinary acetone; Becton-Dickinson kit No. 70, with syringe and needles; isopropyl alcohol; and cotton.

DIAGNOSIS AND THERAPY

So much for the physical set up. Now a few words about the actual procedure in managing diabetics. When a patient has been referred for suspected diabetes, a general physical examination is done, with special attention to height, weight, blood pressure, and examinations of the ocular fundi for the presence of retinopathy, of the liver for hepatomegaly, of the genitalia for vulvar pruritis, of the pulsation of the foot arteries, and of the activity of the deep tendon reflexes. A complete urinalysis is made, including a test for acetonuria and a test for post-prandial blood sugar. These procedures usually suffice for diagnosis. If the patient is complaining of polydipsia, polyuria and weight loss, and if one finds glycosuria and a blood sugar above 200 mg., nothing more is needed for diagnosis. Because in mild diabetes, blood sugar in the fasting state can be normal, one must be careful that the blood sample tested is post-prandial. If following these tests, the data are still unconvincing, a glucose tolerance test is scheduled.

When the diagnosis has been made, the patient is informed of it, gently but firmly enough to leave no doubt in her mind. She is quickly assured that the program that she will be asked to follow is simple, yet as effective as possible without greatly disrupting her way of life. If a trial without insulin is unlikely to be hazardous, most patients appreciate the doctor's making an effort to manage them by means of diet alone. If the attempt is unsuccessful, they can see by their own home testing that insulin is required. A patient abruptly loses morale upon being informed of the diagnosis of diabetes. Because action is better than pity, under these circumstances instruction is begun promptly. The first day's lesson usually includes instruction regarding diet, about the methods for testing urine for sugar and perhaps acetone, and about keeping a record of the tests taken before each meal and at bedtime.

Diet prescription is the stumbling block for many a physician, and is the hardest part of the early management for the patient to accept. To make the problem easier for both of them, it is a good rule for the physician to make the diet conform as closely as possible to the patient's customary fare. This objective is surprisingly easy to achieve. Weighing the diet, though not exactly outmoded, is not indicated for the average patient. Where a weighed diet is required for the occasional brittle diabetic, one can readily arrange for instruction by hospital dieticians, on an outpatient, fee basis. For the average case, a measured diet utilizing the exchange lists of the American Diabetes Association and the American Dietetic Association, is entirely adequate. Copies of the lists may be purchased from the American Dietetic Association, 620 North Michigan Avenue, Chicago. One of the large pharmaceutical houses, Eli Lilly & Co., has worked out a series of diets varying from 1,200 to 2,500 calories, each complete on two sides of one large printed page. This is a handy and adequate system based upon the exchange plan. In our office an even simpler system has been worked out that seems easier to apply and teach, but we do not recommend it for others. The ADA exchange list has wide acceptance and enthusiastic support. As was previously mentioned, we find it easier to fit the diet to the patient than to figure a diet by mathematical methods and then insist that the patient fit herself to it. She is asked to tell us what comprise her *average* breakfast, lunch and dinner, and we jot down some notes as she recites the items. It is then a simple matter for us to choose a comparable diet from the lists and assign it to her. Its similarity to the things that she has been accustomed to eating will probably please her. The diet can be reduced at subsequent visits if weight loss is desired, or increased if weight gain is indicated.

The patient is then dismissed and given an appointment to return in a few days, bringing her record of urine tests. In the interim, she will have thoroughly read the manual and will have surprisingly few questions to ask. She is cautioned to report if she encounters more than a trace of acetone.

INSULIN THERAPY

The first day it may be obvious that insulin is required, or it may become apparent after some days of futile effort at correcting the condition by

diet alone. When the physician becomes certain that insulin is needed, he must be firm in announcing the fact to the patient, and he must outline his reasons. The patient is then sent to purchase the injection equipment, and is asked to return to the office on the same day if possible. It has been found psychologically preferable that she start injections that very day, rather than to procrastinate and allow herself time in which to dread the first injection by her own hand. Most patients assert that it is utterly impossible for them to inject themselves, but we offer no support to their self-pity and insist upon the injections. Because there is no doubt in our minds that it can and must be done, we go right ahead with the teaching. A small injection of about five units of insulin is given by the nurse or assistant with the patient's own newly-purchased syringe, or a duplicate of it. The patient is then made to give herself a similar small injection. No time is wasted on practice with an orange or other inanimate object. Once the patient has administered an injection to herself, her fears tend to evaporate. Some doubt their ability to handle the injection at home the next morning, but they always succeed.

Because NPH or lente will control 80 per cent of cases, we usually start with that type of insulin, and the dose is usually about 10 to 16 units. For our own information, we require patients to test the urine before each meal and at bedtime, and keep a record of the tests. The patient focuses her attention upon the late afternoon test, and she is directed to increase the dose by two units every three days until that test clears, subsequently lowering or raising the dosage every three days as necessary to keep the pre-supper test clear, or nearly so. Typically, the first morning test clears first, then the late afternoon test, next the bedtime test, and finally—if ever—the forenoon test. If the first morning test fails to clear, one cannot expect smooth control with a single injection of intermediate-acting insulin. Consequently, a small dose of say six units is added before supper, and it is increased by two units every three days until the first morning test drops either to negative or to a trace. If two daily injections are objectionable, one can switch to a mixture of PZI and regular insulin, in a ratio of one part PZI to two parts of regular, or perhaps of one to three. As the dose is increased, the simplest way to manage a mixture is to keep the ratio intact until the morning test clears. Then the rest of the tests will usually show little or no sugar. If, however, there is heavy glycosuria at other times, regular insulin is added to the mixture without an increase in the PZI.

Finally, some instruction is provided for the episodes of acidosis that can be expected to accompany illness, infection, laxness, menses or other complications. Most manuals give such instructions in detail. We supply the following directions which seem to help patients avoid hospitalization for minor upsets:

"Diabetic coma can be prevented. When some illness threatens to upset the diabetes, it may be wise to start special measures. Diabetics who lapse readily into poor control, at which time they may be in danger of developing acidosis and coma, will do well to have on hand some 'Acetest' tablets. These are available in drug stores. The test is made by placing a drop of urine on a tablet; a lavender color indicates a trace of acetone; purple indicates heavy acetone, and this is the signal to start the 3-hour testing schedule which follows:

"(1) Continue the usual dose of insulin at the usual time.

"(2) Clinitest and Acetest the urine every 3 hours. If it tests 2 per cent, take 8 units of REGULAR insulin immediately; if ¾ to 1 per cent, take 5 units.

"(3) Continue the usual diabetic diet unless the stomach is upset. If so, take small quantities of liquid or soft food every hour or two; ½ cup of milk, ginger ale or 7-Up, soup and a cracker; ½ slice toast and a soft egg; etc.

"For milder upsets in diabetic control (heavy urine sugar but negative Acetest), one can usually reestablish control by a 'semi-emergency routine' as follows:

"(1) Continue the usual dose of insulin at the usual time.

"(2) Clinitest the urine 30 minutes before each meal. If it tests 2 per cent, take 8 units of REGULAR insulin immediately; if ¾ per cent, take 5 units; if 0 to ½ per cent, take no extra insulin."

Follow-up checks are made frequently until control has been established. After that, the patient is requested to appear once or twice a year, or perhaps oftener if the diabetes is unstable.

SUMMARY

A description has been given of a method of office management for diabetic patients, a method that has been in use for seven years. It was first forced upon us by the shortage of hospital beds, but it has resulted in saving considerable expense to the patients and insurance companies, and the facility with which patients are continued at work without loss of time is gratifying.

Plan to Attend the

ISMS ANNUAL MEETING

April 28-May 1, 1957

Experience With the

Surgical Treatment of Gallbladder Disease

H. I. DOWN, M.D.

SIOUX CITY

GALLSTONES and their complications are among the most frequent pathologic conditions that the general surgeon is called upon to treat. Generally, it has been estimated that 10 per cent of adults in this country have gallstones,[1] but some estimates have been as high as 25 per cent.[2] In many patients they produce only mild symptoms, but in others they cause severe symptoms and disability.

Since the first cholecystectomy by Langenbeck in 1882 and the first choledochostomy by Kummell in 1890,[2] great strides have been made in the surgical treatment of this disease. Today, operations upon the gallbladder and biliary passages are among the most frequently performed surgical procedures. Glenn states[1] that five per cent of the operations performed each year at the New York Hospital-Cornell Medical Center are for biliary tract disease, and Colcock[3] states that cholecystectomy is the second most frequently performed abdominal operation, exceeded in frequency only by laparotomy for removal of the appendix.

It is more or less a standard practice for clinics and hospitals associated with teaching institutions periodically to review and report their experiences in the treatment of various diseases, among them cholelithiasis and its complications. For the busy general surgeon practicing in a hospital where there are no interns or residents and where there is somewhat less than a superfluity of medical-librarian assistance, such a study can be rather burdensome. But there can be no question that such studies have considerable value, if not to the profession generally, then to the individual surgeon who makes them, thus reviewing, studying and criticizing his own work, and seeking to improve his results. A request from the Committee on Scientific Work of the Iowa State Medical Society for a paper on this subject provided the additional impetus that I needed to undertake my study.

I have chosen to review the clinical, pathologic and surgical aspects of a series of 500 patients with disease of the gallbladder and biliary passages upon whom my associate, Dr. M. A. Blackstone, and I operated during the period from October, 1947, through December, 1954. All of the surgery was performed in one or another of the four hospitals in Sioux City. Patients who underwent similar operative procedures for which Dr. Blackstone and I did not have full responsibility and for which we did not provide the preoperative and postoperative care are not included in this series. Patients who had carcinoma of the ampulla of Vater and carcinoma of the head of the pancreas have also been excluded.

The patients varied in age from 18 to 85 years, the average being 50.8 years. Approximately 53 per cent of them were between the ages of 40 and 60, and 20.4 per cent were between 60 and 70 years of age. There were 26 patients (5.2 per cent) older than 70, and 4 were beyond 80 years of age. Three patients (0.6 per cent) were under 20. Three of the four patients past 80 years of age had acute cholecystitis. Of the 26 patients past 70, there were 20 who had one or more complications such as acute or subacute cholecystitis, common duct stone, jaundice, pancreatitis or cancer of the gallbladder. This incidence of complications is considerably greater than that which we found in the group as a whole. There were 383 females and 117 males, a ratio of approximately 3:1.

TABLE 1
AGE DISTRIBUTION

Age in Years	*Patients*
10-20	3
20-30	40
30-40	61
40-50	124
50-60	144
60-70	102
70-80	22
Over 80	4
Total	500

SYMPTOMS

The common symptoms were pain, gaseous indigestion, and nausea and vomiting. Almost 70 per cent of the patients complained of more than one of these symptoms; 30 per cent complained of only one; and over 16 per cent complained of all three.

Pain was the commonest symptom, and was present in 462 (92.4 per cent) of the patients. It was the only symptom complained of by 86 (17 per cent) of the whole group. The character and intensity of the pain varied greatly. It was described as anything from a dull, aching discomfort to the most severe colic, the sort that requires opiates for relief. Gaseous indigestion, belching and bloating were present in 287 (57.4 per cent) and were the only symptoms in 25 (0.5 per cent) of the patients.

It was usually related to the eating of coarse and greasy foods. Nausea and vomiting were present in 199 (39.8 per cent) of the patients, but in those having subacute and acute cholecystitis, they were present in 68 (64.7 per cent). Fever was present on admission in 42 (8.4 per cent). It was present in 11 per cent of those who had common duct stones, and in 27.6 per cent of the 105 patients who had subacute and acute cholecystitis. Except in the latter group, the elevation of temperature was slight and of short duration. Jaundice was present in 40 (8 per cent) of the patients, and a history of jaundice was obtained from an additional 26 patients (5.2 per cent). Thus, 67 (13.2 per cent) of the total group had either jaundice or a history of jaundice. Two patients had no symptoms relative to the gallbladder or biliary tract. In each of them, cholecystectomy was done because stones had been found during the course of another operation.

TABLE 2
SYMPTOMS

Type	*Number of Patients*	*Per Cent of Group*
Pain	462	92.4
Gaseous indigestion	287	57.4
Nausea & vomiting	199	39.8
Fever	42	8.4
Jaundice or history of jaundice	67	13.4
None	2	0.4

X-ray studies were made in 360 of the 500 patients, and 176 (49.6 per cent) showed the presence of stones. No gallbladder function was apparent in 176, and 173 of them (98.2 per cent) had stones at operation. Two of the three without stones had cholesterosis of the gallbladder. In ten patients, x-ray showed a poorly functioning gallbladder without stones, and in eight of them, stones were found at operation. Six patients, at x-ray, had normally functioning gallbladders and no visible stones, but five of them were found to have stones at operation.

For various reasons, 140 patients were not subjected to x-ray. Most of them were ones admitted with acute or subacute cholecystitis or jaundice, and those who had previously had cholecystectomy were not given the dye. A certain few who had typical gallstone colics, and a few in whom gallstones had been diagnosed at other institutions were not x-rayed. There is no question as to the value of cholecystography, accurately performed, in the diagnosis of gallstones and gallbladder disease, but neither is there any question as to the value of a good clinical history of gallstone colic. This is illustrated by the six patients in whom we found a normally functioning gallbladder without stones. In five of them, stones were found at operation either in the gallbladder or in the common duct.

Previous operations had been performed upon the gallbladders and biliary ducts of 19 (3.8 per cent) of the patients. Seven had had cholecystectomy, and one had had cholecystectomy and choledochostomy. Of the eight patients just referred to, there were two who were found to have stones in the ampullary portion of the gallbladder that was still present; two had long cystic-duct stumps with stones, and one had a long cystic-duct stump without stones. Nine patients had had cholecystostomy; one had had cholecystectomy and four months later an hepatico-duodenostomy for stricture of the common duct. One patient had had cholecystectomy and, ten days later, abdominal drainage for bile peritonitis secondary to an injury to the common duct.

OPERATIVE FINDINGS

Of the entire group of patients, 371 (74.2 per cent) had chronic cholecystitis with stones, and 15 (3 per cent) had chronic cholecystitis without stones. Fifty-seven (11.4 per cent) had subacute cholecystitis with stones, and 48 (9.6 per cent) had acute cholecystitis with stones. Common duct stones were found in 81 patients, an incidence of 16.2 per cent. Congenital absence of the gallbladder was found in three patients, all of whom had stones in the common bile duct. Internal biliary fistuli, all between the gallbladder and the duodenum, were present in three patients. In one of them, a large stone was impacted in the second portion of the duodenum, producing complete obstruction, and a second patient had had a previous laparotomy for obstruction of the ileum by a large gallstone. A cholecystocutaneous fistula was present in one patient who had had a cholecystostomy eight months previously. One patient had stenosis of an hepaticoduodenostomy that had been performed for common-duct stricture, and one patient had a divided common bile duct.

TABLE 3
OPERATIVE FINDINGS IN BILIARY TRACT

Type	*Number*	*Per Cent*
*Chronic cholecystitis with stones	371	74.2
*Chronic cholecystitis without stones	15	3.0
Subacute cholecystitis with stones	57	11.4
Acute cholecystitis with stones	48	9.6
Common duct stones	81	16.2
Carcinoma of the gallbladder	4	0.8
Carcinoma of the bile duct	2	0.4
Stricture of the common duct	2	0.4

* Included in this group are those with cystic-duct stump resulting from previous operations.

Carcinoma of the gallbladder was present in four patients, an incidence of 0.8 per cent. In addition, there were two patients who had apparent primary carcinoma of the common bile duct. All of the patients with carcinoma of the gallbladder had stones in the gallbladder. Cholecystectomy was done in all of the patients with carcinoma of the gallbladder, and in two of them a portion of the

liver was excised as well. Pancreatitis was present in 12 (2.4 per cent) of the patients. Six of those 12 patients had subacute or acute cholecytitis with stones.

Perforation of the gallbladder was found in ten patients. In nine, the perforation was protected by omentum and adjacent organs with or without abscess formation, and in one there was free perforation with generalized peritonitis. Cholesterosis of the gallbladder without stones was present in two patients, and papilloma of the gallbladder was present in one. Fibrosis of the sphincter of Oddi and hepatitis with jaundice, in association with gallstones, were each present in two patients. Eleven patients had duodenal ulcer and two gastric ulcers. Six patients had hiatal hernias; one a tumor of the cecum which proved to be a benign adenomyoma; one hemolytic icterus with splenomegaly; and one a primary hepatoma of the right lobe of the liver.

ACUTE CHOLECYSTITIS

Forty-eight (9.8 per cent) of the patients had acute cholecystitis, all with stones. The ages varied from 34 to 85 years, and the average age was 57.8 years, seven years beyond the average age for the whole group. There were 31 females and 17 males, making the ratio 2:1, as contrasted with 3:1 for the entire group. The symptoms were much more severe in this group, and all but two had fever and leucocytosis. Many of the patients had mild to severe tenderness and rigidity in the right upper quadrant of the abdomen. All of the cases of perforation were in this group.

In addition to the above, there were 57 patients with subacute cholecystitis with stones. These were patients in whom there was marked thickening and edema of the gallbladder wall, many with stones impacted in the ampulla of the gallbladder or cystic duct, and many representing subsided or late stages of acute cholecystitis. Thus, 105 patients fell into the group of acute and subacute cholecystitis with stones. In this group of patients, the incidence of other complications in the biliary tract was considerably higher than in the group as a whole. Specifically, pancreatitis was present in 5.7 per cent; jaundice in 23.8 per cent; and common duct stone in 18 per cent. In contrast, the figures were 2.4, 13.4 and 16.2 per cent, respectively, in the group as a whole.

TABLE 4
INCIDENCE OF COMPLICATIONS

Type	Entire Group		Subacute or Acute Cholecystitis	
	No.	Per Cent	No.	Per Cent
Pancreatitis	12	2.4	6	5.7
Jaundice or history of jaundice	67	13.4	16	23.8
Common duct stone	81	16.2	19	18.0

The increased incidence of complications in the biliary tract among patients in the older age group is an important factor to bear in mind because of its influence upon morbidity and mortality. As will be brought out later, the deaths in this series, with one exception, were in patients over 65 years of age, and all had complications of their biliary-tract disease. Most of them also had complicating degenerative changes in other organs as well. It seems logical that the removal of the diseased gallbladder before these complications occurred would have done much to lower the mortality following the surgical treatment.

The ideal treatment of acute cholecystitis is cholecystectomy, but there has been much controversy over the proper time to operate upon a patient with this condition. The question is not a simple one because of the many important factors involved. As mentioned above, the patients with this condition are usually in the older age group and thus more frequently have complicating degenerative diseases. Moreover, many of these patients—in our experience the majority of them—are not seen by the surgeon until the third or fourth day of their illness, when they already show signs of toxemia and dehydration. Furthermore, it has been our repeated observation—by no means an original one—that too frequently there is no correlation between the clinical and pathologic manifestations of acute cholecystitis. Thus, there may be minimal inflammatory changes with severe symptoms in one patient, and extensive acute inflammatory changes with minimal symptoms in another. Furthermore, the physical signs and laboratory findings such as localized tenderness, palpable mass, fever and leucocyte count frequently are not indicative of the degree of the inflammatory process.

There is no question that cholecystectomy can be done more easily during the stage of acute edema associated with the early inflammatory process in the first stages of the disease than during the later stage of brawny induration encountered two or three weeks after the onset, but the decision as to when to operate upon a given patient must be based upon the circumstances presented by that patient. Due consideration must be given to the factors affecting the operative risk, such as the age and general condition of the individual, and the presence or absence of complications in the biliary tract and other organs.

Analysis of the figures shows that in the 48 patients with acute cholecystitis in this series, the period of preoperative observation and treatment varied from 0 to 22 days, the average being 7.8 days. Three patients were operated upon within a few hours of their admission. In each of those patients on whom a decision was made to delay operating, it was our aim to allow the temperature to return to normal, to permit the abdominal tenderness to subside and to have the patient ambulatory for at least 48 hours before subjecting him to sur-

gery. In most instances, the acute process will subside, but careful observation is necessary if one is to detect signs of impending or actual perforation.

Whether one does an immediate or a delayed operation, cholecystectomy can be accomplished in the majority of instances. This is especially true if the patient is in satisfactory condition and if one has satisfactory anesthesia, good assistance and adequate exposure. One should not object, however, to performing a cholecystostomy if these conditions cannot be met and if there is such inflammation that adequate and accurate exposure of the ducts and blood vessels cannot be accomplished. In this group, cholecystectomy was done in 31 and cholecystostomy in 17 of the patients with acute cholecystitis. Choledochostomy was done in 14, and common duct stones were found in six of them. There were three deaths, a mortality of 6.2 per cent.

COMMON DUCT STONES

Choledochostomy was done in 162 (32.4 per cent) of the patients, and common duct stones were found in 81 (50 per cent) of the ducts explored. The overall incidence of common duct stones was 16.2 per cent. The associated operation was cholecystectomy in 144, cholecystostomy in 7, and excision of cystic duct stump in 4. Choledochostomy was the only procedure in seven instances. Transduodenal exploration of the ampulla was combined with choledochostomy in two patients, once for the removal of an impacted stone, and once for a stricture of the ampulla. In four patients it was necessary to reoperate for overlooked common duct stones, and in all of them, stones had been removed from the common bile duct at the time of the original operation.

It is interesting to note the association of jaundice with common duct stones. As has already been said, jaundice was present or a history of jaundice was elicited in 67 (13.4 per cent) of the total group of patients. In 35 (52.2 per cent) of those patients, common duct stones were found. Of the 81 patients with common duct stones, 35 (43.2 per cent) had jaundice or a history of jaundice, and 46 (56.8 per cent) had neither jaundice nor a history of jaundice. Thus, although common duct stones accounted for more than half of the cases of jaundice, yet more than half of the patients with common duct stones *did not* have jaundice or a history of jaundice. Furthermore, the presence of jaundice at the time of operation was a more accurate indication of common duct stones than was a history of jaundice, since 24 of those with common duct stones had jaundice, and only 11 had a history of jaundice.

Common duct stones were present in 53 (14.2 per cent) of the patients having chronic cholecystitis with stones; in one patient with cholecystitis without stones; in one of the two patients with common duct stricture; and in the three patients in whom the gallbladder was congenitally absent. It is significant that eight (44 per cent) of the patients who had had previous operations on the gallbladder had common duct stones. From the histories of those patients, there can be little question that the stones were present at the time of the original operation, and in one instance the common duct had been explored, but the stones not found. The indications for exploring the common duct are generally accepted ones, and usually more than one indication will be present in each instance. The indications are: (1) a dilated and/or thickened common duct; (2) jaundice or a history of jaundice; (3) multiple small stones in the gallbladder, particularly with a large cystic duct; (4) palpation of stones or suspicious nodules in the duct; (5) chronic or subacute pancreatitis; and (6) attacks of typical gallstone colic when there are no stones in the gallbladder.

A T-tube is used following exploration of the duct, and in those patients in whom there is a narrowing of the ampulla, a long arm of the tube is put into the duodenum. A cholangiogram is usually done prior to removal of the tube. The 4.9 per cent incidence of residual common duct stones in this series compares favorably with the reports of from 2 to 25 per cent,[4] but emphasizes the necessity for utilizing methods which will reduce the incidence of this condition.

Though immediate or operative cholangiography has been advocated and is being used extensively, it is not devoid of errors both of technic and of interpretation.[5, 6] Although we have not used it, we admit that the necessity for secondary operations for the removal of stones can perhaps be avoided through its use. Welch[6] has recently discussed the technic for exploring the common duct. He stresses the fact that by taking meticulous care in his exploration, the surgeon can reduce the incidence of stone retention to a very low figure without the aid of the roentgenologist. He emphasizes the importance of thorough exploration of the lower end of the common bile duct with dilatation of the ampulla, the necessity of making certain that a small stone is not retained in the cystic-duct stump, and especially, making a careful exploration of the intrahepatic ducts.

CONGENITAL ABSENCE OF GALLBLADDER

A brief résumé of our cases of congenital absence of the gallbladder follows.

Case No. 1. A 34-year-old woman gave a history of having had mild attacks of gallstone colic, gaseous indigestion and jaundice over a period of 17 years. A cholecystogram showed no gallbladder function.

At exploration, no gallbladder could be found. There was a small nubbin of fibrous tissue about 0.5 cm. in diameter in the lower portion of what should have been the gallbladder fossa. It had no lumen, and there was no attachment to the duct or vascular systems. The common duct was en-

larged and thickened, and it contained a stone 1.5 cm. in diameter.

Case No. 2. A woman 48 years old gave a history of having had attacks of epigastric pain, chills, fever and jaundice for several years. A cholecystogram showed no gallbladder function. At operation no gallbladder was found. There was a bit of fibrous tissue 1 cm. in diameter in the middle of the under surface of the right lobe of the liver. It had no lumen, no blood vessel attachments and no connection with the duct system. There were numerous stones in the common duct.

Case No. 3. A 59-year-old woman had complained of epigastric distress, mild pain and gaseous indigestion for five years. She had not been jaundiced. Exploration showed the common duct to be large, and below the hilus of the liver there was a pouch-like stricture approximately 2 cm. in diameter, containing stones and bile. It may have represented a choledochus cyst. When opened, it was found to be a saccular outpouching from the anterior surface of the common hepatic duct, with an opening about 1.5 cm. in diameter. The opening at the distal end was the common bile duct, and the proximal opening was that to the common hepatic duct. There were stones in the common bile buct, too.

CARCINOMA OF BILE DUCTS

A brief résumé of the cases of bile-duct carcinoma follows.

Case No. 4. A 62-year-old man had had the onset of painless jaundice two weeks prior to his admission. Two days before he came to the hospital, he complained of vague epigastric distress, nausea and gas. Stools were negative for bile and urobilinogen, and the serum bilirubin was 12.7 direct and 4.85 indirect. At operation, the gallbladder was found to be enlarged and filled with white bile, and there was one cholesterol stone. At the juncture of the cystic and hepatic ducts was a tumor which extended into the tissues medial to the duct. The greatly dilated common hepatic duct was opened, and a Bakkes dilator was passed through the tumor into the duodenum. A T-tube was passed through the tumor into the normal duct above and below, and a cholecystectomy was done. The patient died six months afterward.

Case No. 5. A man 58 years of age had had painless jaundice for six weeks. All laboratory work pointed to an extrahepatic obstruction. At exploration, an infiltrating tumor of the duct was found at the juncture of the common hepatic and cystic ducts. The gallbladder was collapsed. There was an extension of tumor tissue into the gastrohepatic omentum and retroperitoneal tissues. The dilated common hepatic duct was opened, and the lumen of the duct with the tumor was dilated. A long-arm T-tube was passed through the ampulla.

OPERATIVE PROCEDURES

A total of 508 operations were performed on the 500 patients. Four patients had secondary operations for retained common duct stones—one because of stricture of the ampulla of Vater—and one had a cholecystectomy done following drainage of an abscess that resulted from perforation of the gallbladder. In one patient who had been admitted with a severed common duct, it was necessary to establish an external biliary fistula by putting a catheter into the common hepatic duct before proceeding with the reconstruction of the duct. In one patient, it was necessary to do a gastroenterostomy to obviate a pyloric obstruction resulting from an intense inflammatory reaction that we feel had been caused by placing sulfa crystals in the gallbladder fossa. (We have long since discontinued using sulfa in this manner.)

TABLE 5
BILIARY TRACT PROCEDURES

Type	*Number*	*Per Cent*
Cholecystectomy	315	63.0
Cholecystectomy and Choledochostomy	144	28.8
Cholecystostomy	21	4.2
Cholecystostomy and Choledochostomy	7	1.4
Choledochostomy	11	
Excision of cystic duct stump, with or without choledochostomy	5	1.0
Abdominal drainage		
Perforation in gallbladder	1	
Bile peritonitis	1	
Repair common duct stricture	2	0.39
Gastroenterostomy	1	0.19
Total	508	

Cholecystectomy was done in 315 (63 per cent) of the cases, and cholecystectomy and choledochostomy in 144 (28.8 per cent). Cholecystostomy was performed in 21, and choledochostomy with or without removal of stones in 7. Cholecystostomy was combined with choledochostomy in 7 patients, and transduodenal ampullotomy and repair of common-duct stricture by end-to-end anastomosis were each performed in 2 patients.

Upon the 19 patients who had had previous operations on the gallbladder and bile ducts, the following procedures were carried out: (1) cholecystectomy for stones in the gallbladder in 6; (2) cholecystectomy and choledochostomy for stones in the gallbladder and common duct in 3; (3) cholecystectomy for cholecystitis with stones and cholecystocutaneous fistula in 1; (4) excision of cystic duct stump with stones and choledochostomy with or without removal of stones in 3; (5) excision of cystic duct stump without stones and choledochostomy in 1; (6) excision of cystic duct stump with stone in 1; (7) choledochostomy with removal of stones in 2; and (8) repair of stricture of the common duct in 2 patients.

Operative procedures on organs other than the biliary tract were carried out in 132 patients. Appendectomy, the most frequent secondary operation, was done in 114 patients. Gastric resection was done in 3 patients; oophorectomy in 6; salpingectomy in 3; and right hemicolectomy, splenectomy and posterior gastroenterostomy in one pa-

tient each. A number of female patients had minor procedures such as dilatation and curettage, and cervical cauterization.

We have no fixed rule about removal of the appendix during the course of an operation on the biliary tract. We usually remove it if it is accessible and if the additional procedure will not add to the risk of the operation. Gastric resection can be done if the patient is in good condition, but there is no question that it increases the risk of the operation. In two of our patients it was done because of duodenal ulcer, and in one because of gastric ulcer. Gastroenterostomy was done in an elderly female patient with a cicatricial obstruction of the first portion of the duodenum. In one of the two patients upon whom oophorectomy was done, it was necessary for us to make a separate low midline incision. This is a procedure that should be undertaken only if the patient is a good risk and if other factors are favorable. The patient on whom the hemicolectomy was done was found to have a tumor of the cecum. X-ray studies of the colon had not been done. The tumor had the appearance of a carcinoma, but on pathologic examination, it proved to be a benign adenomyoma.

COMPLICATIONS

Postoperative complications included phlebothrombosis and thrombophlebitis in 21 patients; wound infections in 7; bronchopneumonia in 4; atelectasis in 6; pulmonary embolism in 5; small bowel obstruction in 5; paritial wound dehiscence in 2; coronary occlusion in 1; transient biliary fistula with peritonitis and hypoproteinemia with edema in 1; and psychosis in 1.

In addition to the 21 patients in whom phlebothrombosis and thrombophlebitis were definitely diagnosed, there were a number of others in whom the condition was suspected because of a low grade fever that persisted for periods of several days, without vein tenderness or swelling of the leg. We are suspicious of phlebothrombosis in any patient having an unexplained elevation of temperature beyond the sixth or seventh postoperative day, and usually employ anticoagulant therapy, even though no signs of thrombosis are present. For the past year, because we feel that this thrombosis may have its inception in the small veins of the feet while the patient is on the operating table, we have been requiring the patients to walk to the operating room, rather than having them wheeled in on carts. It is our impression that the incidence of thrombosis has lessened, but of course we have no proof.

MORTALITY

There were eight deaths in the series. Thus the overall mortality rate was 1.6 per cent. All but one of the deaths occurred in patients who were over 65 years of age. The breakdown according to the pathologic conditions can be seen in Table 6. It can readily be seen that the majority of the deaths occurred in patients who had complications of biliary tract disease. In four of the patients there was evidence of longstanding cardiovascular disease, and in three of these, this condition was a definite factor in the death.

TABLE 6
MORTALITY RELATED TO PATHOLOGY

Pathology	*Number of Deaths*	*Per Cent*
Chronic cholecystitis with or without stones	3	0.77
Subacute and acute cholecystitis with stones	4	3.8
Acute cholecystitis with stones	3	6.2
Common duct stones	3	3.7
Jaundice or history of jaundice	4	5.9
Total mortality	8	1.6

Brief résumés of the records of patients who died are as follows.

Case No. 1. A 48-year-old woman had had attacks of epigastric pain associated with chills, fever and jaundice over a period of several years. X-ray studies showed no gallbladder function. At operation, no gallbladder was found, but there were numerous stones in the common and hepatic ducts. The ducts were thoroughly probed and irrigated. Immediately after operation, the patient's temperature rose to 104° F. There was no bile drainage from the T-tube, and she became jaundiced. Intensive antibiotic therapy brought the temperature to normal, but the jaundice deepened, and the urea nitrogen rose to 135 mg. per cc. of blood. She died on the eighth postoperative day. At postmortem examination, numerous small stones were found in the radicles of the hepatic ducts in the liver, and there was extensive thrombosis of the hepatic arteries.

Case No. 2. A 77-year-old woman had been known to have gallstones for years. She also had had cardiac disease for years, and had recently had mild cardiac decompensation. With the development of a palpable mass in the right upper quadrant and the inability to relieve her dyspepsia, we felt that exploration was advisable to rule out carcinoma of the gallbladder. The gallbladder contained stones, but was not carcinomatous. The common duct was about three times normal size, but it did not contain stones. Thirty-six hours after operation, she suddenly had an onset of dyspnea with clammy perspiration and a drop in pulse rate from 100 to 56 beats per minute. She died very

TABLE 7
CAUSE OF DEATH

Cause of Death	*Number of Deaths*
Cardiac pathology	3
Hepatic artery thrombosis	1
Acute pancreatic necrosis	1
Pulmonary embolism	1
Peritonitis due to rupture of gallbladder	1
Uremia	1

suddenly, with clinical evidence of heart block. No autopsy was obtained.

Case No. 3. A woman 65 years of age had had known gallstones for six months. A diagnosis of coronary heart disease had been made in June, 1954, but the electrocardiogram taken on her admission to the hospital was normal. Recently she had had epigastric pain and gaseous indigestion, and for three weeks she had been jaundiced. Exploration showed hepatitis without common duct stone or pancreatitis. Her postoperative course was uneventful until the fourth day, when she became short of breath, developed tachycardia and showed signs of vascular collapse. She died on the eighth postoperative day of cardiac failure. No autopsy was performed.

Case No. 4. Another 65-year-old woman had had a hemorrhage from a lesion on the lesser curvature of her stomach in 1943 and again in 1950. At the latter time she was noted to have a hypertension with blood pressure of 190/100 mm. Hg. In 1953 and again in July, 1954, she was hospitalized because of jaundice that followed an attack of severe right upper quadrant pain. At exploration, she was found to have a benign ulcer on the lesser curvature of the stomach, and a duodenal ulcer. The common duct was greatly enlarged because of a stone impacted in the ampulla. The pancreas was firm throughout. Though her postoperative course was satisfactory for one week, she then developed signs of cardiac failure with vomiting, edema and elevated urea nitrogen. She died on the eighteenth postoperative day. No autopsy was performed.

Case No. 5. An 82-year-old man was admitted with abdominal pain, vomiting and abdominal tenderness of four days' duration. He was extremely ill. After three hours of preparation, exploration showed a free perforation of the gallbladder, with bile peritonitis. He died 30 hours after operation.

Case No. 6. A man 66 years of age had had a cerebral thrombosis with hemiplegia in 1945. He had marked arteriosclerosis. He was admitted 24 hours after the onset of abdominal pain and vomiting. The preoperative diagnosis was acute appendicitis. At operation he was found to have acute cholecystitis, for which a cholecystectomy was done. On the third postoperative day he developed auricular fibrillation, followed by low urinary output and elevated blood urea nitrogen (117 mg.). He died in uremia on the eighth postoperative day.

Case No. 7. A 65-year-old woman was admitted because of acute cholecystitis with jaundice. When she underwent surgery 15 days after admission, she was found to have a tremendously enlarged common duct, with numerous stones. The ampulla was patent. Her postoperative course was smooth until the ninth day, when she developed epigastric pain, clammy perspiration, fever and gradual failure. Death occurred on the twenty-third postoperative day. At postmortem examination, she was found to have had an acute pancreatitis with marked necrosis of the distal half of the pancreas.

Case No. 8. A 66-year-old woman had had repeated attacks of gallstone colic for several years. An attack just prior to admission had been unusually severe, and at operation she was found to have a subacute cholecystitis with stones. On the second postoperative day, she developed abdominal distention which was relieved by means of a Cantor tube. On the sixth postoperative day, she developed pains in the chest, associated with mild shock. The following day, auricular fibrillation was noted. By the eighteenth day, she was allowed to dangle her feet from the edge of the bed, but on the nineteenth day, while sitting on the edge of the bed, she had sudden pain in her chest and signs of vascular collapse. She died within 30 minutes. The clinical diagnosis was pulmonary embolism. No postmortem was done.

SUMMARY

I have reviewed the clinical and pathologic features and the operative procedures and mortality factors in a series of 500 patients with biliary tract disease. The commonest symptoms of biliary tract disease are pain and gaseous indigestion. Fever and nausea and vomiting are commoner when complications are present. X-ray studies are important in establishing a diagnosis of cholecystitis with stones, but a carefully-taken clinical history is of equal importance.

Cholecystectomy is the operation of choice in the treatment of cholecystitis with stones, and it can be accomplished in the majority of patients even when complications are present. However, one should not apologize for doing a less definitive operation, such as cholecystostomy, if accurate identification of the duct structures is impossible.

The mortality in this group, with one exception, occurred in patients in the older age group. All of the deaths were in patients who had complications of their biliary tract disease such as acute or subacute cholecystitis, common duct stones, pancreatitis, and jaundice and/or complicating degenerative changes inherent in patients of their age group. It seems logical that cholecystectomy early in the course of calculous gallbladder disease would do much to lower the mortality rate in the surgical treatment of this disease.

Three patients in this series presented congenital absence of gallbladder, and all had stones in the common bile duct.

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An Unusual Technic for

Removing a Foreign Body From the Bladder

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MAQUOKETA

FOREIGN BODIES are important diagnostic possibilities in the ailments of many of the organ systems. Such is especially the case with the pharynx, the eye, the ear, the nose, the chest and the intestinal tract, as well as the urinary tract. Cases involving foreign bodies are unusually fascinating, not only as regards the diagnostic mysteries for which they are responsible, but also for their unusual methods of occurrence, whether accidental or intentional. But the treatment—i.e., removal—of a foreign body often taxes the patience and sometimes the ingenuity of the physician in charge. Such a foreign body is notoriously difficult to find, and it is often elusive when approached by means of various types of extracting instruments.

The literature on urologic foreign bodies is an especially fascinating subject, albeit often a lurid and horrifying one. The psychologic quirks that are responsible for the presence of foreign bodies in this area, together with the variety that those objects encompass, are an engaging subject for contemplation. UROLOGICAL ODDITIES, edited and published by Dakin in 1948, lists a surprising assortment. Any solid material small enough to pass through the urethral meatus can be "lost" in the bladder. In addition to the common types of which we might easily think, Dakin lists worms, larvae and small snakes.

A vivid oddity involves the fish Candiru *(Vandellia Cirrhosa)* which occurs in the Amazon basin. It has a singular urinophilous instinct that incites it to enter the urethra and bladder, where it attaches itself to the mucosa. The natives drink a brue of buitach apple which purportedly dissolves the skeleton of the fish.

So much for the Amazon natives and the buitach apple! The following is a case report of a bobby pin in the bladder and of its removal by means of an Alnico magnet. No precisely similar cases have previously been reported, though Hofmeister[3] reported the use of an ophthalmic electromagnet as long ago as 1902. With a special extension attached to the core of the magnet, one that could be inserted into his male patient's bladder, he removed a small bolt. His use of olive oil to distend and lubricate the bladder was an interesting preliminary to the extraction.

My patient, a well-developed 13-year-old lad, presented himself in October, 1955, with the complaint of hematuria of one week's duration. He volunteered no explanation of his difficulty, and my painstaking physical examination was altogether unproductive. The etiology went unresolved, so far as I was concerned, until two weeks later, when the urologic center to which I had referred him informed me in a suitably diplomatic letter that a flat film had demonstrated the presence of two bobby pins in the region of the bladder neck. Cystoscopic removal was attempted unsuccessfully. But then a suprapubic cystostomy was performed and the pins removed; the patient's postoperative course was uneventful; and following his discharge from the hospital, some appointments were arranged so that he might have psychiatric attention.

Approximately two months later, this boy announced to his mother that an hour previously he had inserted another bobby pin into his penis. When the patient was examined, scout films revealed a common-sized bobby pin again lodged in the region of the bladder neck (Figure 1).

Removal of the object by means of a magnet was considered and attempted. Sodium pentothal anesthesia was used, and a meatotomy was performed for the correction of a moderate meatal stricture. A cylindrical Alnico magnet 3.8 cm. in length and 0.4 cm. in diameter was introduced into the amputated tip of a No. 18 rubber urethral catheter and secured with fine silk. The magnet was passed per urethra to the bladder neck, and contact with the pin was confirmed by lateral x-ray views (Figure 2). Gentle withdrawal of the catheter extracted the bobby pin, "pointed" end first, still adherent to the magnet along its entire length, as demonstrated by the operative x-ray film. Aside from the x-rays, the procedure occupied about two minutes. There was no bleeding, and a Foley catheter was inserted. Appropriate urinary antibiotics were given, the catheter was removed on the second postoperative day, and recovery was uncomplicated.

DISCUSSION

I vaguely remember having been told during my embryonic medical years that there is rarely a



Figure 1. A-P view of pelvis showing foreign body (bobby pin) in the bladder-neck area.

"new" idea or technic which hasn't been touched upon or reported by our revered predecessors. I found that to be true in this instance, as my review of Hofmeister's report has indicated. My claim to glory, such as it is, must rest, then, upon some refinements. The Alnico magnet has innate magnetic force and does not rely upon electromagnetic induction of a suitable "core." It is made of an alloy of aluminum, nickel, cobalt and iron, and is 25 times stronger than conventional magnets of equal size. It was originally developed for industrial work, and it has wide application in that field.

I have entertained an interest in the Alnico magnet for some time, and have used it in the removal of a magnetically susceptible object from a child's stomach.[4] Though Equen[5] has reported that no more than 10 per cent of foreign bodies of the stomach can be attracted to a magnet, one might suppose that foreign bodies of the lower urinary tract are more likely to possess magnetophilia, since the inherent requirements for their introduction through the urethra are length, narrowness and rigidity.

The unusual case that I have presented suggests several remarks: (1) The early removal of the foreign body was advantageous. Foreign bodies of the bladder become encrusted relatively quickly, a circumstance that probably complicated and may actually have prevented the cystoscopic removal of the first two bobby pins. (2) The retrograde migration of the pin from the penis to the bladder neck is interesting, and it confirms previous observations in other cases. It is particularly interesting when one considers the short period (about two hours) between the introduction of the pin and the initial x-ray. (3) The foreign body was removed with ease in spite of the fact that the "pointed" end was the distal one. The purely accidental contact of the magnet with a longitudinal surface of the pin, along its entire length, was undoubtedly advantageous as far as secure adherence was concerned. But we might guess that it would have increased likelihood of the pin's being scraped off during the withdrawal of the catheter. (4) I am sure that this method will not replace the conventional methods entirely. Instead, the direct-vision cystoscopic removal of foreign bodies will remain the method of choice. Yet this new method proved quite satisfactory in this instance, and perhaps other physicians will be tempted to give it a trial when the object is known or presumed to be a magnetically susceptible one. It is

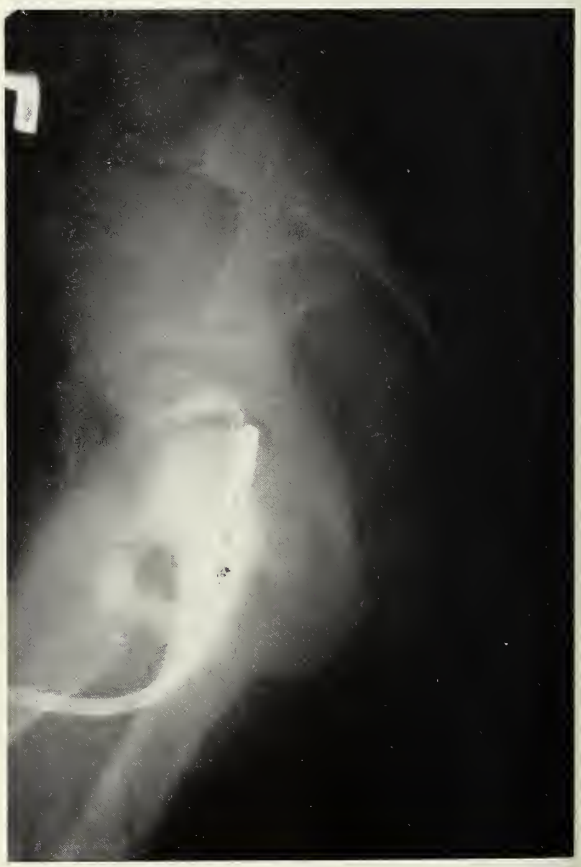


Figure 2. Lateral view of pelvis during the magnetic extraction procedure. The pin is in contact with the magnet along one of its longitudinal surfaces.

certainly conceivable that topical urethral anesthesia could be employed and the patient's problem resolved in a few minutes.

SUMMARY

1. I have presented a case in which a foreign body (a bobby pin) was removed from the bladder neck of a male patient by means of a magnet introduced through the urethra into the bladder.

2. I have suggested that this method is worthy of consideration when the foreign object is magnetically susceptible and has been in the bladder for no more than a short time.

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Stress and Allergy in Ophthalmology

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OTTUMWA

Psychosomatic and allergic factors should be given high priority whenever one seeks to determine the cause of ophthalmologic disease.

A person's temperament may be a key to the disease that afflicts him. Possibly the most startling medical discovery of this generation is the fact that one's personality can literally kill him. Excess parasympathetic stimulation, parasympathotonia, which produces autonomic dysfunction, is but the neural manifestation of a more basic factor that may lie in the "psyche" and is the result of a situational or environmental stress of which one may be either conscious or unconscious. A disordered hypothalamic response may underlie the condition. Emotion and stress apparently are transmitted from the psychomotor centers of the frontal lobe to the hypothalamus, a nucleus or center for the central autonomic system, and thence by parasympathetic preganglionic fibers to the posterior lobe of the pituitary.

Today, it can be said, the world has the "jitters." We see people even in high places "cracking" under the strain of life's demands. Campaigns and literature on cancer, polio and heart disease, wars and rumors of war, insecurity and other emotional strains to which people are subjected by modern society—all of these things have raised the sensitivity level of our psychosomatic and allergic mechanism. When a patient comes to the doctor's office, he brings his emotions with him. Those emotions cannot be separated from the physical factors of his illness, and the doctor must evaluate them and take them into consideration in the diagnosis that he makes and in the treatment that he prescribes.

Corticosteroid measurements, the Minnesota Multiphasic Personality Inventory and a very careful allergic survey will correlate and evaluate the psychogenic overlay, and in many cases will show a parallelism between the findings and the pathology that is observable. By those means we can expect, eventually, to lessen the number of diseases that we must call idiopathic.

The term *allergy* is generally used to denote acquired hypersensitivity, and *atopy* is the word used in referring to an allergy that has a hereditary background. Allergens—the substances that give rise to allergic states and, thereafter, to allergic reactions—are almost innumerable. Besides foreign proteins, foods and digestive products, and nitrogenous materials such as pollens and metals, the list of common allergens includes drugs, living or dead microorganisms, molds, yeast, fungi, bacteria, viruses, and some of the soluble constituents and metabolites of viruses. Physical influences such as light, heat and cold, as well as some emotional factors, have also been known to cause allergies. Reactions may be immediate or delayed, and they may continue for months.

Practically every tissue, cell or organ of the body may become sensitive to some allergen. Practically every tissue, cell or organ of the body may react to emotional storms or stress, thus falling victim to one of the diseases of the general adaptation syndrome of Selye.

Allergy and stress produce an excess parasympathetic stimulation, parasympathotonia or autonomic dysfunction, resulting in a smooth-muscle spasm of the arterioles and venules, with capillary dilatation, stickiness of the vessel wall, increased permeability, transudates, edema, anoxia and, in many cases, obliterative arteritis. The pathology that results is the same as that which is found in infections, trauma, metabolic disturbances, blood dyscrasias and atherosclerosis. Stress and allergy often occur simultaneously, and in many instances allergic phenomena occur only during periods of stress, or the initial attack occurs at such a time. Ashman has reported such a case.

Scratch intradermal-patch testing, and ophthal-

mic, nasal, bronchial, rectal and vaginal smears, as well as tissue smears, will often show the presence or the predominance of eosinophils—a good indication that allergy is present. Hansel's technic for making a smear requires just a minute.

Some of the various allergic and psychosomatic manifestations are of particular interest to the ophthalmologist. In my review of them, I shall pay special attention to the therapeutic aspects.

SKIN AND MUCOUS MEMBRANES

Lid edema. Allergic edema of the eye often occurs as a part of a generalized urticaria. The source of this disease is conspicuously difficult to establish. Acute reactions are often due to allergens, although antibiotics and drugs such as penicillin and aspirin should always be given first consideration as one undertakes to determine the cause. Chronic bacterial infections such as tooth abscess, hemorrhoids or gall bladder disease should be considered. Chronic urticaria with lid involvement often has a definite psychogenic background, particularly in the middle-aged group and most especially in females, for they are often under constant emotional stress.

Emotional upsets, family incompatibilities and economic difficulties will produce generalized urticaria and lid edema. Those conditions may persist for months, and during that time the patient may develop food sensitivities that will result in mucous and ulcerative colitis.

Dermatitis. It is possible to distinguish two distinct types of dermatitis around the eye: atopic dermatitis and contact dermatitis. Atopic dermatitis is produced by inhaled and ingested allergens, whereas contact dermatitis is due primarily to external irritants. In early childhood the first of these is primarily due to food; in later years, it is due to inhalants, especially pollens, fungi and house dust. Contact dermatitis on the eyeballs or near the eye is caused by a great variety of agents such as cosmetics, wearing apparel, poison ivy and, especially, drugs. The pattern of the lesion is often the key to the diagnosis. Dermatitis localized around the eyebrows can usually be traced to the patient's using mascara or nicking her skin with tweezers. More often than not, a lesion in the inner aspect of the eye is due to nail polish. Eye drops cause lesions which are readily recognized because they extend downward in vertical streaks from both corners of the eye.

Blepharitis. This ailment is frequently due to Staphylococci and food sensitivity. Often it is part of the picture of dermo-conjunctivitis.

Hordeolums and chalazions. These are probably allergic in origin. In some instances they occur as complications of an allergic blepharo-conjunctivitis from such sources as cosmetics and soaps. Tear-duct obstruction may be caused by an allergic edema in conjunction with allergic reactions, especially hay fever.

Conjunctivitis. Allergic conjunctivitis is the commonest allergic eye disease. It occurs seasonally as a manifestation of hay fever and a chronic allergic nasal disease, or it may occur as a vernal catarrh. It is encountered in conjunction with an acute allergic reaction—so-called allergic shock. Acute, sudden hyperemia, edema, marked chemosis, watery discharge (usually produced by air borne allergens such as pollens, animal danders, house dust, feathers, smoke and fumes), and itching and burning—these are the symptoms. Eosinophils and skin tests are positive.

Here is a case report of a vascular lesion which had a psychosomatic basis and which simulated conjunctivitis. During her early childhood, a woman had developed nasal hemorrhages whenever she got into emotional difficulties. These episodes continued until she was 13 years of age. From then until she was 40, she menstruated at any time during the month, whenever she experienced emotional difficulties. After the age of 45, she developed a marked vasodilatation of all her conjunctival vessels and gave the impression of having a marked conjunctivitis whenever she was under a great deal of stress.

Spontaneous bleeding is not an isolated incident at a specific site, Jacobson states,[7] but is a systemic disease of hormonal origin, probably the effect of tension and stress upon the endocrine system, resulting largely in a depression of estrogen levels. In this sense, spontaneous hemorrhage may be one of the diseases of the general adaptation syndrome of Selye.[18] Recurrent vitreous hemorrhages may fall into this group.

The use of new drugs, chemo- and antibiotic therapy, cosmetics, jewelry, plastics, metals and occupational contacts often produce eyelid eczema. The thin skin of the eyelid permits penetration of the allergen, whereas the thicker skin of the face and hands does not. Patch tests of the lids do not permit normal evaporation of the drug or cosmetic, with the result that false-positive reactions occur. Thus, it is better to apply the patches in other areas.

Keratitis. All types of conjunctivitis may be complicated by keratitis. Some authorities have attributed keratophlyctenular conjunctivitis to mold sensitivity. Some feel that marginal keratoconjunctivitis, with its semicircular lesions, is due to allergy. Lesions from sensitivity to the organisms of tuberculosis, syphilis, undulant fever and histoplasmosis differ from those of atopic allergy.

Keratoconus. Waldbott[20] reports that strong positive skin reactions to foods and inhalants characterized about 10 cases of keratoconus that he studied. Aggravation and temporary improvement could definitely be correlated with the presence and the withdrawal of these sensitizers. The prog-

ress of the condition was arrested through allergic management, but no clear-cut, permanent improvement was noted. Ruedemann[17] *et al.* have also stated that there may be an allergic basis for keratoconus.

Cataract. Cataract may be associated with atopic eczema, and it also can be seen in connection with contact dermatitis. Cataracts due to allergy may come on gradually or very suddenly during a flare-up of the skin lesion. Skin tests usually produce a strong reaction. Great caution should be exercised when one attempts to desensitize such patients, for an overdose may produce serious results.

Uveitis. In contrast with lesions involving the external parts of the eye, those affecting the uvea are principally associated with respiratory allergy, especially sinus disease and bronchial asthma. Uveitis is often aggravated seasonally by air-borne pollen or fungi. Opacities in the vitreous body sometimes occur in conjunction with asthmatic attacks or following overdoses of pollen injections. The patients in whom one makes such findings benefit considerably from cautious desensitization. Several cases which previously had been treated intensively with tuberculosis and undulant-fever vaccine have shown severe reactions to intradermal skin testing with these products. Because of the danger of focal flare-ups from these tests, only highly dilute material should be employed.

As a result of his sensitivity to a tuberculin test, one man developed a violent uveitis and ended up with 20/100 vision in one eye and 20/400 in the other. Because no reaction had been produced by his first test, a second one was given him one week later. Within 24 hours, his vision in both eyes enabled him to do no more than count fingers. Evidently, he developed an anaphylactic reaction in both eyes as a result of the repeat tuberculin test, made within the so-called sensitivity period.

Glaucoma. Some literature has recently appeared on the allergic nature of certain types of glaucoma. Glaucoma has been observed to be a part of a chronic serum sickness and to be associated with food allergy and with systemic reactions to sulfonimides. Ciliary vessels are believed to act as shock organs, and thus to induce increased ocular tension. During a period of stress, tension and field defects often increase.

Retinal lesions. Lesions involving the retina can usually be related to allergy of the brain and nerve elements, such as edema of the optic nerve or choked disk in association with migraine headaches. Allergic edema occurs in the retina and may lead to retinal detachment. This may occur seasonally at the height of pollen peaks, or it may be due to chronic allergic nasal and sinus disease. Detachments have occurred as a result of vitamins, foods, inhalants, contacts and psychosomatic difficulties.

Retrobulbar neuritis. When this ailment follows overindulgence in alcohol or tobacco, it is likely to be due to a toxic action of the product, rather than to a true allergic sensitivity. Bacterial sensitivity might play a part. When hemorrhages of the retina occur, we must be aware of purpura of allergic origin. Emotional factors play a large part in the cases of retrobulbar neuritis that we see almost daily—ones that clear up within a few minutes, or as a rule within 24 hours. Multiple sclerosis sometimes occurs later in these cases, and the part that oligodendrite cells play in maintaining homeostasis of the myelin sheath may be a factor.

Studies by Stevenson,[19] Rudolf and Ashby,[16] Lewis,[8] Moore,[10] Pollack,[11] White[21] and Bacon *et al.*[3] suggest that long-standing and tense emotional stress may exert a profoundly stimulating effect on the growth rate of an established cancer in man, as well as other pathologic syndromes.

Two excellent examples of retrobulbar neuritis caused by food allergy have been reported by Allen[1] and by Seidelmann and Rathgeber.[15] They were clinically proved by repeat performances when the foods were eaten. Ruedemann[17] mentions a young man who experienced four retinal detachments in one year due to chocolate. In 1954, I reported several case of retrobulbar neuritis due to emotional stress and fatigue;[13, 14] in 1937, one case of retinal detachment due to vitamin sensitivity; and in 1955, one due to stress.

Muscular imbalance and myopia. Ruedemann[17] states that both of these are often the result of allergy. Strabismus is commonly a part of the allergic facies, with its high palate, protrusion of the maxilla, nasal polyp formation and general lymphoid hyperplasia. Routine office management in screening these cases, as suggested by Miller[9] and Baruch,[4] will bring out both the allergic and the psychogenic etiology when present, and will aid in the medical and surgical treatment and results.

TREATMENT

1. If the psychogenic overlay is evaluated and eliminated, the so-called drug-fast and allergic cases often respond at once, and there is no necessity for one's referring them to health centers or to other physicians.

2. There should be a careful balance among avoidance of causative agents, desensitization, counteracting infection and symptomatic medication.

3. Therapy intended to remove the psychogenesis should consist of three parts: (a) getting the patient to name the feeling, such as anger, anxiety, fear, worry, jealousy or resentment, which underlies the physical manifestation; (b) getting the patient to name specifically the person—husband or wife, mother-in-law, employer—or the thing, such as debt, poverty or lack of education, that is stimulating the emotion; and (c) outlining nondestructive courses of action that can be used as emotional outlets.

The patient must be helped to substitute an ac-

ceptable form of behavior for the one that has made trouble for him. His feelings must be drained, and physical action is often a must. Further, he should be encouraged to verbalize his troubles, for such a catharsis is often helpful.

SUMMARY

1. Psychic and allergic trauma in susceptible individuals may produce organic ocular changes that are just as profound as those produced by direct physical trauma, extreme anoxia, infections, altered metabolism or other pathologies.

2. Every patient brings his emotions to the doctor, along with his physical ills. The two cannot be separated, and this is especially true of allergic cases. A careful survey for allergic and psychosomatic symptoms in every case is suggested.

3. Control of excessive emotional and parasympathetic stimuli will aid in the prevention of pathologic changes, ones which may in some cases be parts of the general adaptation syndrome of Selye.

4. Don't overlook the fact that one can sensitize a patient to emotions by the questions he asks and by the implications he lets fall—ones that will lead the patient to believe that all of his difficulty is due to stress, when in reality he may have other pathologies.

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State University of Iowa College of Medicine

Clinical Pathologic Conference

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SUMMARY OF CLINICAL FINDINGS

A 16-YEAR-OLD WHITE GIRL was admitted to University Hospitals 23 hours after an automobile accident in which she and her boy friend had run into a bridge abutment. From the time of the accident, 11:00 p.m., until 5:00 the next morning, she was unconscious. Gross hematuria was observed, and she vomited five or six times, a half-cup each time. On the last occasion, the vomitus was black, coffee-ground material. She was given 1,000 ml. of blood.

At 10:00 p.m., when she was transferred here, she was responsive, but her history was obtained from her relatives. The admitting examiner found the blood pressure to be 122/65 mm. Hg.; the pulse 108 beats per minute and regular, though diminished in volume; and the body temperature 97°F. No stiffness and no tender areas were found in the neck, but the patient complained of pain on movement of the head. The abdomen was diffusely tender and moderately distended. Faint bowel sounds were heard. There was evidence of a fractured jaw, and there were sutured lacerations over the knees and scattered bruises and scratches. Movement of all extremities was normal, and the neurologic examination was negative. The small amount of black, sour smelling emesis that appeared during the examination tested 4+ with Myers' reagent.

The surgical resident observed that the patient was oriented except for time, but was combative and uncooperative. He found right costovertebral

angle tenderness. An injection of 100 ml. of saline put into the bladder returned clear and in undiminished amount. Microscopically, there were many red blood cells and white blood cells in the urine. At admission, the hemoglobin was 9.5 Gm. per 100 ml., and the white blood cell count was 12,400. Because of continued small emeses, a nasal gastric tube was passed, and suction was applied.

The neurosurgical resident observed that the patient was disoriented as to time and place. The neurologic examination was again negative. The neck was supple, but some pain accompanied flexion, extension and rotary movements. X-ray examination at that time showed a fracture of the odontoid process, with CI displaced anteriorly, a fracture of the body and transverse process of the 7th, and a fracture of the right side of the mandible. An excretory urogram showed that there was no function of the right kidney, and that there was a mass in that area, with lateral displacement of the kidney.

Because the patient was restless, it was feared that she might further injure herself. She was therefore sedated with paraldehyde, and Crutchfield tong traction was applied to her head to protect the cervical cord and medulla. Laceration of the right kidney and possibly also of the liver was suspected. The abdomen became softer, bowel sounds were present, vital signs appeared to be stable, and in consequence, close observation was elected, rather than laparotomy. By the third day, the urine had cleared. There was marked improvement in the patient's mental state on the fourth and fifth day. There was no evidence of further intraperitoneal bleeding. Fourteen pounds of traction was maintained on the head, and the patient reported that she was quite comfortable.

Reduction of the fractured mandible was planned for the tenth hospital day, but staff members of the Division of Anesthesiology demurred for fear that cervical cord damage might occur during induction. On the eleventh hospital day, it was noticed that the patient's face was edematous to the point of closing the eyelids. It was further noted that the blood urea nitrogen had been 99 mg. per 100 ml., and the creatinine 7.5 on the ninth day. The urinary albumin was 3+ on the eleventh day, with a specific gravity of 1.010. Respiratory rate and blood pressure were normal.

The patient had five grand mal seizures in rapid succession, followed by cyanosis, poor ventilation, unresponsiveness and quadriplegia. A repeat blood urea nitrogen measurement was reported as showing 69 mg. per 100 ml., with creatinine 3.8. At that time the sodium was 142 mEq. per liter; potassium 4.4 mEq.; chloride 115 mEq.; CO_2 14.7 mEq.; calcium 13.4 mg. per 100 ml.; and phosphorus 3.2 mg. per 100 ml.

A tracheotomy was carried out. Artificial respiration maintained the patient until the fifteenth hospital day, when the heart action ceased. Urinary output ranged between 700 and 2,600 ml. per day, and did not decrease prior to the patient's death.

CLINICAL DISCUSSION

Dr. Edward E. Mason, Surgery: The patient selected for discussion today was a 16-year-old girl who had been born in this hospital but had not been seen again until her admission following an accident in which she and a companion drove into a bridge abutment. She was unconscious for six hours, and during that time was cared for in a local hospital. It was necessary to give her 1,000 cc. of blood. She had grossly bloody urine and some abdominal distention. Her condition then improved enough so that her physician felt it possible to transfer her to this hospital. On admission here, she was observed to have faint bowel sounds, a distended and tender abdomen, a somewhat rapid pulse but normal blood pressure, a lowered hemoglobin, and red blood cells in the urine. Because it was also noted that she had some pain on movement of her head, x-ray examinations were made of her skull and cervical spine. An intravenous pyelogram was also obtained. One of the important lesions that were found can be diagnosed only by x-ray, and for that reason I shall call on Dr. Lodwick first.

Dr. Gwilym S. Lodwick, Radiology: On a film taken on the day of this patient's admission, we could see that there was a fracture through the base of the odontoid process. A fragment could be seen to have been displaced slightly upward into the slight separation between the odontoid process and the body of the second cervical vertebra. In the lateral view, one could see that the odontoid process was slightly tilted, but not dislocated. There were fractures through the left transverse process of the seventh cervical vertebra and through the neural arch of the sixth cervical vertebra. In either instance was there much displacement.

The excretory urogram done shortly after admission showed a normal left pyelogram. On the right side, however, the renal outline was not at all well demonstrated, and there was no evidence of excretion. This finding strongly suggested a traumatized right kidney.

Dr. Mason: Essentially, then. the patient had three problems: (1) the odontoid fracture and other fractures in the cervical spine; (2) fairly good evidence of a lacerated or fractured kidney on the right; and (3) good evidence of some intra-abdominal injury. I think it is essential that one person take charge of a patient like this, but when specialists are available in different fields, they must be called upon, and I'm going to ask Dr. Buckwalter to tell us how he would have managed this patient, as far as her abdominal problem was concerned and whether or not he would consider it immediately necessary to explore the abdomen.

Dr. Joseph A. Buckwalter, Surgery: In evalu-

ating the problem presented by this patient, it was advantageous to us that approximately 24 hours had passed since the accident. That lapse of time was of considerable value to us in deciding whether we should continue observation, or should immediately undertake exploration.

Certain signs and findings in this patient suggested that perhaps exploratory laparotomy was indicated. First of all, however, I think it might be interesting to go over some of the various possibilities as regards whether or not intraperitoneal injury such as this patient may have sustained demands surgical intervention. In this particular case, my attention is directed toward the gastrointestinal tract or upper respiratory tract by her history of vomiting tarry material that contained blood, as demonstrated by Myers' reagent. The patient's physical findings attract attention to the upper right quadrant and to the right flank, where an injury to the kidney was suspected. A contusion or laceration of the liver was a good possibility. In this particular patient, injury to the spleen was somewhat less likely, although that is perhaps the solid viscera most often injured in cases of this sort.

In favor of exploration at the time we saw her were the history and our findings of blood in the gastric vomitus, although we couldn't be sure that the latter didn't come from the upper respiratory tract. Also, there was the record of the patient's having been given 1,000 cc. of blood before she was brought here. It could be assumed from that fact that there had been some blood loss at or subsequent to the accident, and the hemoglobin of 9½ Gm. on her admission to University Hospitals led us to suspect that it was continuing. We also have the statement that although the blood pressure appeared to be normal on admission, her pulse was small in volume and somewhat rapid. These factors suggested that she was borderline, in so far as shock is concerned. In addition, there was the finding suggestive of an abdominal mass that was recorded by one of the examiners.

Against exploration at the time we saw her, on the other hand, was the absence of any evidence of active bleeding subsequent to the time of her injury. There was no history of bright red vomitus or passage of blood in the stool or blood noted on rectal examination. Also, we had the feeling that the vital signs were relatively stable, even though the pulse was somewhat accelerated. Her blood pressure had been well maintained, and there was no history of shock. We noted peristalsis, which suggested the absence of visceral injury or damage to the gastrointestinal tract and consequent escape of its contents. The tenderness, which was maximal in the right upper quadrant of the abdomen, was equivocal. One can have diffuse or localized tenderness when there has been a simple contusion of the abdominal wall, without any intraperitoneal injury. And distention may also be present without any injury to the solid viscera or to the gastrointestinal tract. Thus it was very difficult to evaluate such a patient as she.

We weighed all of these considerations, one against another, and decided—wisely, as it turned out—that probably there was no intraperitoneal injury which necessitated surgical intervention. In this sort of patient, the passage of an intragastric tube is many times a very useful procedure. The demonstration of bright red blood helps one in differentiating between a contusion and a severe laceration injury to the gastrointestinal tract. As time passed, there was no progression of her abdominal signs, and there was nothing to suggest intraperitoneal bleeding due to contusion, laceration of the liver or the spleen, or injury to the gastrointestinal tract.

Dr. Jack Moyers, Anesthesiology: What evidence is there that the blood in the gastrointestinal tract originated from below the pharynx? Could it have been swallowed?

Dr. Mason: I don't think we can be sure that it wasn't swallowed. Yours is a very pertinent question, one that always arises when there has been trauma around the head, nose, etc. One can't be certain whether the old blood that has been vomited actually came from the gastrointestinal tract. It may have been swallowed.

Because of the patient's restlessness and our knowledge that she had an odontoid fracture, she was placed in Crutchfield tong traction. I'd like Dr. Perret to tell us how the odontoid fracture was treated, and, if he will, I'd like him to comment upon the absence of neurologic findings in this patient at the time of her admission. Specifically, I'd like him to tell us why she developed convulsions on her eleventh hospital day, but not until then, and why she had a complete paralysis and deteriorated rapidly thereafter. Is there any way by which that chain of events might have been prevented?

Dr. George E. Perret, Neurosurgery: We see about two or three odontoid fractures a year at this hospital. That fact suggests that this disturbance is relatively rare among spinal injuries. The majority of patients with odontoid fracture don't have neurologic signs or symptoms. This is fortunate. With a spinal cord lesion produced at the time the odontoid is fractured, the patients could die almost immediately and would not be referred here.

For the purpose of clarifying the mechanism of odontoid fracture, perhaps you will permit me to be lurid for a moment. A very expressive picture in TIME about three weeks ago showed the technic by which a prisoner is executed in Budapest. The man is made to stand on a stool about 30 cm. high, with the noose around his neck, and the minute that the stool is kicked from under him, someone comes from behind and pulls his head back. The upper portion of the spinal cord is thus severed and crushed, and the odontoid is fractured.

Our patient had a cranio-cerebral injury. The

fact that she was comatose for six hours afterward may interest us. Her intracranial injury may possibly have been cerebral concussion, or it may have been cerebral contusion, although she had no obvious neurologic signs and symptoms of that injury either. We believe that the treatment of any fracture of the cervical spine should be treated immediately by skeletal traction in order, if possible, to realign the vertebrae one with another and to protect the spinal cord by providing it a relatively smooth canal. Whether we are dealing with a fracture of C6 and C7 or with a fracture of the odontoid process, skeletal traction is the best immediate treatment. In that position, the weight pulls the head away from the patient's shoulders, possibly elongates the cervical spine to some extent and allows readjustment of its dislocated portion. At the same time, it fixes the head pretty much in one position, allowing the patient to be turned from side to side and from side to back. After a period of six to eight weeks of skeletal traction, the fractured pieces usually have consolidated, and a plaster cast or neck collar can then be applied and the patient discharged.

On the thirteenth day after her injury, this girl developed convulsions. Why she had convulsions we don't know for sure, but there are two or three possible explanations. The first one is cranial cerebral injury, with possible cerebral contusion, for it can produce convulsions at any time from the first post-traumatic day onward. Second is uremia consequent to an injury to one of the kidneys. As you no doubt have noticed, her blood urea nitrogen was 99, her creatinine 7.3, and her albuminuria 3+. There was edema in her face and in her extremities. We thought she could possibly have developed uremia as a consequence of the injury to one of her kidneys. Of course the urinary output was adequate, but I don't know that an adequacy of urinary output precludes every type of uremic poisoning.

For another thing, this girl had a fairly large fluid intake—on some days as much as 4,000 cc. In my opinion, that is not a very good treatment for a patient with multiple injuries. It is very possible that she could also have developed pulmonary edema, and we know that with pulmonary edema we may have severe circulatory disturbances that can eventually produce a certain amount of cerebral ischemia and may result also in convulsive attacks. So any one of several factors could have produced the convulsions.

I hope that you have seen patients with convulsions. They are quite dramatic. When one has a fracture of the odontoid, it is quite possible that spastic movements of the neck muscles could actually have dislocated the odontoid process posteriorly into the spinal canal and crushed the spinal cord. Thus, I suggest, a patient whose odontoid has been fractured in an automobile accident and who has subsequent convulsions is quite likely to do for himself what a hangman's assistant does for the unfortunates in Budapest to whom I have referred. I am sure that that is what happened in this case, for after the convulsions the patient was quadriplegic and did not breathe. Thus, the phrenic nerves as well as the intercostals were not functioning. She had to be put into a respirator, she had to have a tracheotomy and she died.

Another possible reason for convulsions is the development of a lower nephron nephrosis secondary to several blood transfusions.

I don't know whether we should have treated this patient in some different fashion. Nearly all odontoid fracture patients here and at other surgical clinics are treated with skeletal traction, and after six or eight weeks are put in Minerva jackets or in stiff, leather-steel collars so that they can ambulate and go home. In retrospect, it seems probable that if we had put this patient immediately into a Minerva jacket, she perhaps would not have severed her upper cervical cord when she had a convulsion. But how could we know ahead of time that she was going to have a convulsion?

The largest series of fractures of the odontoid process was reported recently in ARCHIVES OF SURGERY* and came from the Los Angeles County Hospital. Of the 63 cases, neurologic examinations were negative in 51. They were all treated by skeletal traction, and afterwards were put into Minerva jackets or leather-steel collars. Of the 63, 5 died. Interestingly enough, one died of a ruptured spleen and of shock on the third day; another died on the fourth day from severe cerebral injuries; another died on the ninth day of severe cerebral injuries; another one died on the eighth day of a convulsion that produced a quadriplegia with respiratory arrest (though the patient had previously been neurologically negative). The fifth patient died of meningitis in the seventh week.

Of course, we could have given our patient barbiturates or other anti-convulsants if we had expected the occurrence of a convulsion, and perhaps if we have another patient like her, we should do so, especially if there are indications that a craniocerebral injury occurred at the same time as the spinal injury.

Dr. Mason: Dr. Bunge, this patient had a high BUN two days before she had her convulsions. Could that have predisposed her to convulsions? Could a large hematoma in the region of the right kidney have had anything to do with her high BUN? In addition, how did it happen that she developed a high BUN when her lowest daily urinary output was 700 cc. and she continued to put out as much as 1,£00 cc. on some of the days shortly before her death?

Dr. Raymond G. Bunge, Urology: I think we have good evidence that the renal lesion, whatever it may have been, was an acute one. First, the excretory urogram indicated that the left kidney was

* Amyes, E. W., and Anderson, F. M.: Fracture of odontoid process; report of 63 cases. AMA Arch. Surgery, 72:377-393, (Mar.) 1956.

able to concentrate enough radio-opaque material to produce a shadow at the end of five minutes. Under these circumstances, we usually find that the BUN is normal, or at least below 30 mg. per 100 ml. Thus, this girl started out with an adequate renal function. On the ninth day, I believe, the BUN was found to be 99 and the creatinine was likewise elevated. Second, further observations indicated drops in the BUN and creatinine afterward. Whatever the lesion may have been, it was clearing by the time the second BUN was taken. It was definite that this girl had azotemia, and there were some other signs and symptoms that strongly suggest that she was likewise uremic. The most likely lesion associated in such circumstances with trauma is lower nephron nephrosis. It is seen following trauma, and especially after crushing injuries, all types of operations, transfusions and any possible cause of shock. It has a multiplicity of inciting causes. In reviewing the symptoms and findings, and observing the course of events, I should think, then, that the girl had a lower nephron nephrosis. Of course the first BUN determination was made relatively late, for the elevation ordinarily occurs 48 hours or more after the inciting cause. These patients are usually oliguric, and there is a remarkable drop in their urinary output. Then, along about the eighth to tenth day, a marked diuresis occurs. But if we were to make sure that this girl failed to follow that pattern, we should need to have a plotting of her daily fluid intake and output.

Dr. Mason: Do you think that the kidney should have been removed?

Dr. Bunge: We hesitate to use surgery in treating kidney ailments, for the kidney has remarkable recuperative powers, and the likelihood of its resuming its function is good. In most cases in which there is evidence of impending shock and increasing hematoma within the abdomen, surgery is definitely indicated, provided of course one can demonstrate that the opposite kidney is present and functioning.

Dr. Mason: There's some doubt about the propriety of the term *lower nephron nephrosis,* but we shan't take time to explore that problem today.

Dr. Frederic W. Stamler, Pathology: At the time of autopsy, this patient showed very severe damage to the central nervous system, including severance of the upper cervical cord and very extensive generalized hypoxic softening of the central nervous system as well as the contusions and lacerations that she had received in the accident. Necrotic hemorrhagic areas were particularly noted at the tips of the frontal and temporal lobes, which are common sites of trauma in cases such as this. She had, in addition, an early extensive subdural hematoma over the left cerebral hemisphere. This blood was clotted, but because it had not undergone any extensive degeneration, we can assume that most of it had accumulated during the last few days of her life, although she may well have had some injury during the automobile accident that predisposed her for it. The other lesions noted included the previously described fractures of the mandible and cervical region.

In addition, the patient had rather extensive lacerations of the liver, which were healing and which apparently had not caused excessive bleeding. There was rather generalized staining of the peritoneal surfaces, but no free blood and no evidence of massive intraperitoneal hemorrhage. She did, however, have a massive hematoma surrounding her very extensively crushed right kidney. The kidney was completely severed from the ureter in the region of the pelvis, and a massive hematoma surrounded it and extended into the retroperitoneal tissues of the lower abdomen and pelvis. She had heavy edematous lungs, which were the site of extensive pneumonia of the hypostatic type that is common in patients dying this sort of death. The final lesion worthy of mention involved the left kidney and might properly be referred to as a tubulorrhexic nephropathy. This probably accounts for the azotemia which she had developed clinically and which was still present to some degree at the time of autopsy. This lesion was no more than mildly serious, as judged by the histologic findings, and appeared to be in the healing stage. That observation supports the clinical findings as regards kidney function.

Setting the precise time when this renal disease could have begun constitutes something of a puzzle. Dr. Bunge has pointed out that apparently the patient had good function of this kidney at the time of her admission to this hospital, and there was no particular time during her hospital stay that could be pointed to. Of course she did have certain of the factors that are very commonly found in cases of this sort of renal disease, particularly the extensive trauma that provides a source for considerable hemoglobin from the degenerating hematoma and other hemorrhagic lesions. These things in themselves apparently do not result in this type of tubular degeneration or necrosis of the kidneys, however, and usually some element of shock needs to be superimposed on trauma before this disease makes its appearance.

Dr. Mason: I have heard of patients with this type of fracture surviving the acute episode only to die suddenly from some minor trauma. I shall, therefore, ask Dr. Ponseti about the long-term management of a patient with odontoid fracture.

Dr. Ignacio V. Ponseti, Orthopedic Surgery: Before I begin talking about the long-term management of these patients, I'd like to mention one or two other points. First, I was taught to treat the fracture of the odontoid process by applying a well-molded Minerva plaster cast designed to cover the forehead and to hold the mandible. After two or three weeks, the mandible can be freed. To apply this plaster cast, one lays the patient on a

table, with his head hanging in slight hyperextension and held by an assistant. A very well-molded plaster cast will be fairly comfortable, and the patient usually tolerates it well. This type of treatment seems safer than traction. The case under discussion today proves my point. One doesn't have to obtain an accurate reduction of the fractured odontoid, but it should be approximately accurate.

The other point I'd like to make is that after hanging there may be either of two lesions. The odontoid process either breaks or dislocates, but usually it dislocates, and the likelihood of compression injury to the spinal cord is much greater in a dislocation than in a fracture. The odontoid process is held in place by the transverse ligament of the axis, and when hanging takes place, it dislocates and presses against the medulla, thus causing sudden death.

Now that I think of it, I'd like to make a third point. Although dislocation of the odontoid process is rare, subluxations are occasionally seen in children. They occur after tonsillitis or after an infection of the throat. It is very difficult, however, to demonstrate subluxation of the odontoid in x-ray film. The treatment of these children is also immobilization in a plaster jacket or Minerva cast for about two or three weeks. You know of course, for it's mentioned in most books, that acute dislocation of the odontoid process occurs in children with tuberculosis of the cervical spine and with large retropharyngeal abscesses. These dislocations occur because of extreme decalcification of the bones and softening of the ligaments.

The follow-up on patients with well-reduced fractures of the odontoid will usually reveal a complete recovery after three or four months of immobilization in a plaster cast or Minerva jacket. But if the patient continues having pain on motion of the neck, one can look for a subluxation of the odontoid by flexing the neck completely, and sometimes he can see in x-ray films that the odontoid process is slightly displaced backward. If the patient complains of pain on motion of the neck, it is advisable for one to undertake a fusion of the cervical spine, second and third cervical vertebrae to the occiput. I have never done one of those fusions, however.

The fusion of the upper cervical vertebrae into the occiput should not be undertaken in the acute stage, for the patient may have a complete severance of the cord during the induction of anesthesia. Besides, there is so much edema in the area as a result of the trauma that adding trauma by surgery may damage the cord. Thus, the operation should be delayed at least one month, and preferably two months. The indication for cervical fusion, it seems to me, is a non-union of the odontoid process or a recurrent subluxation of the odontoid process. In my experience, it is a rare condition.

Student: According to the protocol, the patient had five convulsions. Would the application of the plaster cast before the fifth convulsion have prevented the damage to the cord?

Dr. Mason: The convulsions were in succession, one right after another.

Dr. Perret: It's my view that malunion of the odontoid process and recurrent dislocation are not extremely rare. In a group of 61 patients, nonunion occurred in five cases. Neurosurgeons and neurologists see numerous instances in which recurrent dislocations are producing symptoms months or even years after fracture. It was for that reason that Cone started, in 1937, to fuse the upper cervical spine to the occiput, and that operation is still performed quite frequently in recurrent symptomatic dislocation of the odontoid. Such patients develop multiple disturbances such as shoulder weakness and symptoms involving the upper extremities. Occasionally they may also have symptoms involving the long spinal tracts in addition to the upper extremities.

Dr. Robert T. Tidrick, Surgery: I believe it has been the contention here this afternoon that if this patient had been in a Minerva cast when her convulsions occurred, she wouldn't have died. How many times would we want to see patients die for lack of that immobilization before making the use of a Minerva cast routine?

Dr. Perret: In addition to suggesting the substitution of the Minerva cast or the leather-steel collar for the Crutchfield tong traction, I said it might be wise to put the patient on anti-convulsant therapy whenever the patient is suspected or is known to have had an intracranial injury.

Dr. Tidrick: But let's suppose that our case has given us no reason for assuming any intracranial injury. What if there is just a fracture of the odontoid?

Dr. Perret: Then I wouldn't expect any convulsions.

Dr. Tidrick: We had a case of nonunion not too long ago that I think you will recall. The difficulty came on after six or nine months. In another case that we saw recently, the detached fragment of the odontoid completely absorbed after six or eight months. That patient should obviously have had fusion.

Now let's go back to the other treatment. Dr. Ponseti has proposed the routine and early use of the Minerva jacket—just as soon as the diagnosis has been made. I feel that the rest of you should say what you think of the idea of substituting the Minerva cast for the Crutchfield tongs in all cases, regardless of whether there is any evidence of brain damage or any reason for expecting the onset of convulsions.

Dr. Perret: I can't answer that question, for I don't have the requisite experience. One would need to run a series, in which half of the patients

were put first in skeletal traction and later in Minerva jackets, and the other half were put in Minerva casts immediately. Only by that means could we find out whether the odontoid fuses well to the body of the axis and whether complications such as dislocation are less likely under the substitute method of treatment. I have the feeling that it's traction that helps put the bone back into its normal position.

Dr. Ponseti: In these fractures, traction isn't required. Rather than a shortening, there is just a displacement of the odontoid. Thus, all that one needs to do is to hyperextend the neck very gently so as to allow the weight of the head, held by an assistant, to reduce the odontoid. I think we have been using traction in these cases simply because traction has been found useful in the reduction of other sorts of fractures and because we have found it easier to apply traction than to mold a plaster cast.

The reduction can be done most satisfactorily if the patient has been put under general anesthesia. After putting on the cast, one should take x-ray pictures, and if there is a slight displacement he may have to remove the plaster and start over again. Once the reduction has been accomplished, however, there is no danger of displacement of the odontoid, provided that the plaster has been well molded. Patients whom I have treated have done all right.

Dr. Mason: This patient also had a fracture of the jaw, and her physicians were talking about fixing that under anesthesia. It was not done because the anesthetist felt it would be dangerous to put this patient to sleep. Specifically, he feared that during the excitement stage of induction she might dislocate her odontoid.

Dr. Moyers: Muscle spasm in response to injury may serve as a protective mechanism for the avoidance of further damage. Deep anesthesia, or light anesthesia and muscle relaxant, may deny the patient the benefit of that protection and allow movements which the patient would not tolerate if he were awake. We were therefore hesitant in this instance to administer anesthesia until the surgeon had paid proper attention to the alignment and support of the spine.

I think an endotracheal catheter should be placed while the patient is awake, and that care should be taken to move the head and neck as little as possible in the process. If that is impossible, a tracheostomy should be performed. The patient should be anesthetized only when adequate measures have been taken to insure proper traction and support to the injured area. The patient must be protected against injury resulting from movements which muscle spasm would not allow when he was awake, but which may occur easily when he is anesthetized.

I have one question. How much examination of these injuries is appropriate? The protocol says, "The neurologic examination was again negative. The neck was supple, but some pain accompanied flexion, extension and rotary movements." Is it wise for these movements to occur if there is a suggestion of a fracture in the area? The protocol says that x-ray examination at the time had shown a fracture. Did the physician who performed the physical examination know the results of the x-rays? Since we are agreed that small movements can cause damage later on, I should like to know how much examination would have been harmful.

Dr. Mason: I'm glad you brought up that question. I'd like Dr. Ponseti to answer it, and also to comment on the advisability of reducing such fractures and putting on jackets without the use of anesthesia.

Dr. Ponseti: One doesn't need to move the neck very much in examining such a patient as this.

As regards anesthesia during the setting of odontoid fractures, let me say that it has been necessary in the cases that I have attended, for relaxation of muscles is necessary to a proper reduction. In the patients whom I have worked on, we had no artificial airway.

Dr. Moyers: We think we must.

Dr. Ponseti: Then you would have to do a tracheostomy. You might try to reduce the fracture without anesthesia, but I think you can't or that it would be difficult.

Dr. Mason: Has one any assurance of being able to induce anesthesia in such a patient fast enough to pass the excitement stage without losing the natural airway?

Dr. Moyers: No, sir. It is probable that we could anesthetize such a patient as this without an excitement stage, but we could not be sure of adequately supporting the airway without detracting from the alignment of the cord. On the other hand, it is simple to establish an adequate airway ahead of time, and it is safe. The patient may suffer some discomfort from being awake during the intubation, and there will be a scar resulting from the tracheostomy, but these are small prices to pay for the security that the procedure provides. Incidentally, there is a possibility that this patient's convulsions were a result of hypoxia or asphyxia. The avoidance of such conditions costs little and is predictable.

Dr. Mason: I'd like to summarize the conundrum that has been posed. On the one hand, one can do a tracheostomy, anesthetize the patient and put him into a Minerva jacket. On the other hand, you can keep him in Crutchfield tong traction. The point that Dr. Perret has made is that we don't know whether the Minerva jacket insures the patient from damage to the cord during convulsions. Additional clinical observation and analysis of experience may help to settle this problem regarding the optimum treatment of odontoid fracture.

SUMMARY OF NECROPSY FINDINGS

Dr. Stamler: The central nervous system was very extensively involved by diffuse early softening, with focal intracerebral hemorrhage, diffuse subarachnoid hemorrhage and a fresh subdural hematoma over the left cerebral hemisphere. There was evident cervical cord compression and softening associated with fracture of the odontoid process of the 2nd, the body of the 6th and the transverse process of the 7th cervical vertebra. Much of the malacia of the brain and spinal cord appeared to be recent, of hypoxic type and correlated with the clinical deterioration that had been observed for the first time on the twelfth day.

Other traumatic lesions included fracture of the right mandibular ramus, multiple lacerations of the liver and extensive rupture of the right kidney. There was a massive right perinepric hematoma, but only blood staining of the peritoneal surfaces was observed.

There was extensive regenerating tubular degeneration of the left kidney, which was compatible with the diminishing azotemia that had been observed clinically. A moderate degree of hemorrhagic cystitis was also present.

The lungs were heavy and edematous, with extensive bronchopneumonia as the immediate cause of death.

NECROPSY DIAGNOSES

1. Encephalomalacia and myelomalacia, extensive, early
2. Subdural hematoma, left, recent
3. Focal necrosis, anterior hypophysis
4. Fractures, 2nd, 6th and 7th cervical vertebrae
5. Fracture, right mandibular ramus
6. Rupture, extensive, right kidney
7. Lacerations, multiple, liver (healing)
8. Pulmonary congestion, edema and confluent bronchopneumonia, severe
9. Tubular degeneration, left kidney (regenerating)
10. Hemorrhagic cystitis
11. Azotemia, moderate
12. Tracheostomy, postoperative

Coming Meetings

In State

Oct. 8-9	**Fifth Annual Conference, Institute of Gerontology.** Iowa City
Oct. 9-10	**Nursing Home Operators' Convention.** Hotel Kirkwood, Des Moines
Oct. 12-13	**Radiology. SUI,** Iowa City
Oct. 21	**ISMS Conference of County Presidents and and Secretaries.** Hotel Savery, Des Moines
Oct. 25	**Dermatology & Syphilology. SUI,** Iowa City
Oct. 28	**Iowa and Nebraska Trudeau Societies.** Hotel Chieftain, Council Bluffs
Nov. 2-3	**Otolaryngology for GP's. SUI,** Iowa City
Nov. 16-17	**Obstetrics & Gynecology. SUI,** Iowa City

Out of State

Oct. 1-4	**Electrocardiography.** U. of Nebr. Coll. of Med., Omaha
Oct. 1-5	**Review of Recent Advances in Internal Medicine.** Tufts College, Boston
Oct. 1-5	**Physical & Occupational Therapy in Poliomyelitis.** Warm Springs Foundation, Georgia
Oct. 1-5	**Intervertebral Disc.** NYU, NYC
Oct. 1-5	**Management of Mass Casualties.** Army Med. Service School, Ft. Sam Houston, Texas
Oct. 1-5	**Malignant Neoplasms in Gynecology.** NYU, NYC
Oct. 1-5	**Anesthesiology: Endothracheal & Related Methods.** NYU, NYC
Oct. 1-5	**Thoracic Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 1-7	**Annual Assembly in Otolaryngology.** U. of Illinois, Chicago
Oct. 1-9	**Radiology of the Chest.** Mt. Sinai Hospital, NYC
Oct. 1-12	**Surgical Anatomy & Clinical Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 1-13	**Obstetrics, Course I.** Cook County Graduate School of Medicine, Chicago
Oct. 1-15	**Obstetrical & Gynecological Pathology.** New York Polyclinic Hospital, NYC
Oct. 1-15	**Urologic Pathology.** New York Polyclinic Med. School, NYC
Oct. 1-19	**Pain Syndromes: Diagnosis & Treatment by Regional Block.** U. of Penna., Philadelphia
Oct. 1-31	**Clinical Obstetrics, Harvard University.** Boston Lying-in Hosp.
Oct. 1-31	**Clinical Gastroenterology.** New York Polyclinic Med. Sch., NYC
Oct. 1-31	**Course for General Practitioners.** New York Polyclinic Med. School, NYC
Oct. 1-31	**Refraction.** New York Polyclinic Med. School, NYC
Oct. 1-31	**Clinical Proctology.** New York Polyclinic Med. School, NYC
Oct. 1-31	**Diseases of the Chest.** Columbia U., Bellevue Hosp., NYC
Oct. 1-31	**Clinical & Office Obstetrics.** New York Polyclinic Med. School, NYC
Oct. 1-Nov. 12	**Clinical & Cadaver Gynecology.** New York Polyclinic Med. School, NYC
Oct. 3-5	**27th Annual Symposium on Heart Disease, San Francisco Heart Assn.** St. Francis Hotel, San Francisco
Oct. 4-6	**3rd Annual Meeting, Academy of Psychosomatic Medicine.** Hotel Plaza, NYC
Oct. 5-6	**Scientific Session, Nebraska Heart Assn.** Omaha
Oct. 8-9	**Mental Problems of Long Term Illness.** City of Hope, Duarte, Calif.
Oct. 8-9	**Annual Refresher Course, Am. Soc. of Anesthesiologists.** Municipal Auditorium, Kansas City, Missouri
Oct. 8-10	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Oct. 8-12	**42nd Annual Clinical Congress, American College of Surgeons.** Civic Auditorium, San Francisco
Oct. 8-12	**Recent Advances in Cardiovascular Disease, Am. Coll. of Physicians.** Mt. Sinai Hospital, NYC
Oct. 8-12	**Gynecology & Endocrinology.** NYU, NYC
Oct. 8-12	**Internal Medicine, Am. Coll. of Physicians.** Vanderbilt Univ., Nashville
Oct. 8-13	**International Cancer Cytology Congress.** Drake Hotel, Chicago
Oct. 8-19	**Clinical Uses of Radiosotopes.** Cook County Graduate School of Medicine, Chicago
Oct. 8-19	**Urology.** Cook County Graduate School of Medicine, Chicago
Oct. 8-19	**Electrocardiography & Heart Disease: Basic Course.** Cook County Graduate School of Medicine, Chicago

Oct. 9-13 **American Rhinologic Society.** Illinois Masonic Hospital & Palmer House, Chicago

Oct. 9-Dec. 12 **Orthopedics for GP's (several concurrent, part-time courses).** NYU, NYC

Oct. 10 **Thyroid Diseases.** U. of Indiana, Indianapolis

Oct. 10-11 **20th Annual Symposium on Heart Disease.** Los Angeles County Heart Assn.

Oct. 10-Nov. 7 **Surgical Pathology.** Cook County Graduate School of Medicine, Chicago

Oct. 11-12 **Symposium on Endocrines & Nutrition.** Univ. of Michigan, Ann Arbor

Oct. 11-13 **Mississippi Valley Conference on Tuberculosis.** Hotel Statler, Detroit

Oct. 14 **Emergency Procedures.** U. of Texas, Texarkana

Oct. 15-19 **Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago

Oct. 15-19 **Medical Aspects of Compensation.** NYU, NYC

Oct. 15-19 **Clinical Neurology, Am. Coll. of Physicians.** Jefferson Medical College, Philadelphia

Oct. 15-19 **T-B & Other Pulmonary Diseases of Childhood.** NYU, NYC

Oct. 15-19 **Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago

Oct. 15-19 **Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 15-19 **Elementary Electrocardiography.** Mt. Sinai Hospital, NYC

Oct. 15-19 **Postgraduate Short Course, Am. Coll. of Chest Physicians.** Knickerbocker Hotel, Chicago

Oct. 15-19 **Internal Medicine, Am. College of Physicians.** Vanderbilt Univ., Nashville

Oct. 15-20 **Acute Neurological Problems in General Practice.** NYU, NYC

Oct. 15-26 **Selected Subjects of Current Significance.** New York Academy of Medicine, NYC

Oct. 15-26 **Dermatology.** Cook County Graduate School of Medicine, Chicago

Oct. 15-26 **Fractures and Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 15-27 **Postgraduate Course, International Coll. of Surgeons.** Cook County Graduate School of Medicine, Chicago

Oct. 15-Nov. 2 **Cerebral Palsy.** Columbia-Presbyterian Med. Center, NYC

Oct. 15-Nov. 9 **General Surgery I, Harvard University.** Mass. General Hosp., Boston

Oct. 15-Nov. 10 **Review of Surgery for Specialists.** NYU, NYC

Oct. 16-17 **Metabolism & Endocrinology.** U. of Calif. Med. Center, San Francisco

Oct. 17 **Annual Fall Refresher, Minnesota Acad. of General Practice.** Prom Ballroom, St. Paul

Oct. 17-19 **Symposium on Antibiotics.** Washington, D. C.

Oct. 18-19 **7th Annual Conference, National Assn. for Music Therapy.** Hotel Jayhawk, Topeka

Oct. 18-20 **Gastroenterology.** Tufts College, Boston

Oct. 18-20 **Annual Postgraduate Course, Am. Coll. of Gastroenterology.** Roosevelt Hotel, NYC

Oct. 18-20 **Technics in General Practice.** U. of Minnesota Center for Continuation Study, Minneapolis

Oct. 19-20 **Seminar in Diabetes Mellitus.** U. of Florida, Gainesville

Oct. 22 **Influence of Nutritional Processes on Aging; Jaundice.** Acad. of Med. of Cleveland & Cuyahoga County, Cleveland

Oct. 22-24 **School Health Conference.** KU Medical Center, Kansas City, Kans.

Oct. 22-24 **Gynecology for General Physicians.** U. of Minnesota Center for Continuation Study, Minneapolis

Oct. 22-25 **Interstate Postgraduate Med. Assn. of North America.** Cleveland

Oct. 22-26 **X-ray Diagnosis in Obstetrics & Gynecology.** NYU, NYC

Oct. 22-26 **Neuromuscular Disabilities.** Orthopedic Hosp., Los Angeles

Oct. 22-26 **Internal Medicine, Am. Coll. of Physicians.** U. of Washington, Seattle

Oct. 22-26 **General Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 22-26 **Advanced Electrocardiography.** Mt. Sinai Hospital, NYC

Oct. 22-26 **Breast & Thyroid Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 22-26 **Functional & Degenerative Diseases of the Heart.** U. of Vermont, Burlington

Oct. 22-27 **Treatment of Fractures & Other Traumatic Conditions.** Harvard University. Mass. General Hospital, Boston

Oct. 22-27 **8th Postgraduate Assembly of the Endocrine Society.** U. of Texas, Houston

Oct. 22-Nov. 2 **Cystoscopy.** Cook County Graduate School of Medicine, Chicago

Oct. 22-Nov. 2 **Treponema Pallidum Tests for Syphilis.** V-D Research Laboratory, Chamblee, Georgia

Oct. 22-Nov. 3 **Gastroenterology.** Cook County Graduate School of Medicine, Chicago

Oct. 22-Nov. 2 **Gynecology Course II.** Cook County Graduate School of Medicine, Chicago

Oct. 22-Nov. 9 **Obstetrics & Gynecology.** Cook County Graduate School of Medicine, Chicago

Oct. 22-Nov. 9 **Physical Rehabilitation for Nurses.** NYU, NYC

Oct. 22-Nov. 16 **Basic Course in Use of Radioisotopes.** Oak Ridge, Tennessee

Oct. 24-25 **Progress in Management of Rheumatic Diseases.** Bunts Institute, Cleveland

Oct. 24-26 **Aviation Medicine.** UCLA, Los Angeles

Oct. 25-27 **Pediatrics.** UCLA, Los Angeles

Oct. 29-31 **Rheumatology.** U. of Oregon, Portland

Oct. 29-31 **Auscultation of the Heart.** NYU, NYC

Oct. 29-31 **Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 29-31 **Minor Surgery.** Mt. Sinai Hospital, NYC

Oct. 29-Nov. 1 **24th Annual Assembly, Omaha Mid-West Clinical Society.** Hotel Fontanelle, Omaha

Oct. 29-Nov. 2 **Present Concepts of Internal Medicine.** Letterman Hospital, San Francisco

Oct. 29-Nov. 2 **Industrial Health for Nurses.** NYU, NYC

Oct. 29-Nov. 3 **Management of Mass Casualties.** Walter Reed Hospital, Washington, D.C.

Oct. 29-Nov. 3 **Surgery of the Eye for Specialists.** NYU, NYC

Oct. 29-Nov. 3 **Surgical Technic.** Cook County Graduate School of Medicine, Chicago

Oct. 30-Nov. 2 **Institute for X-ray Technicians.** Am. Hospital Assn., Shoreland Hotel, Chicago

Nov. 1-2 **Cardiac Roentgenology.** New York University, NYC

Nov. 1-2 **Environmental Medicine in Industry and Home.** St. Luke's Hospital, Cleveland

Nov. 1-3 **Rheumatic Diseases.** Tufts College, Boston

Nov. 1-3 **Obstetrics.** Kansas Univ. Med. Center, Kansas City, Kans.

Nov. 1-14 **Hematology & Blood Bank.** Univ. of Pennsylvania, Philadelphia

Nov. 1-14 **Pain Syndromes; Diagnosis & Treatment by Regional Block.** Univ. of Pennsylvania, Philadelphia

Nov. 1-24 **Clinical Obstetrics.** Harvard Univ., Boston Lying-In Hospital

Nov. 2-3 **Clinical Symposium on Management of Cancer of Breast.** Univ. of Texas, Houston

Nov. 2-6 **Differential Diagnosis With Slit Lamps (for ophthalmologic specialists).** New York University, NYC

Nov. 5-6 **Southeastern States Cancer Symposium.** Cancer Division of the Florida Board of Health, Jacksonville

Nov. 5-7 **Clinical Electrocardiography.** Colorado Heart Association, V-A Hospital and Colo. Univ. Medical School, Denver

Nov. 5-9 **Practical Electrocardiography.** Beth Israel Hospital, Boston

Nov. 5-9 **Diagnosis and Treatment of Congenital & Rheumatic Heart Disease in Infants and Children.** Cook County Grad. School of Med., Chicago

Nov. 5-9 **Forensic Pathology.** Walter Reed Army Medical Center, Washington, D. C,

Nov. 5-9 **Radiation Therapy for Radiologists.** Univ. of Minn. Center for Continuation Study, Minneapolis

Nov. 5-10 **Cardio-pulmonary Function Studies and Their Clinical Application.** Univ. of Vermont, Mary Fletcher Hospital, Burlington

Nov. 5-16 **Pediatric Cardiology.** Cook County Grad. School of Med., Chicago

Nov. 5-16 **General Surgery.** Cook County Grad. School of Med., Chicago

Nov. 5-16 **General and Surgical Obstetrics.** Cook County Grad. School of Medicine, Chicago

Nov. 5-16 **Pediatric Cardiology.** Cook County Grad. School of Medicine, Chicago

(Continued on page xxxi)



AN AUTUMN RESOLUTION

Though October is not the traditional time for proposing good resolutions, we should like to suggest one. Together, we ask, let us resolve to resume our habit of reading books.

Medical books are only one of the sorts of volumes to which we refer. Of course we don't want to be understood as urging physicians to skimp upon the time they devote to that form of postgraduate education, but we want to point chiefly to books of other sorts.

Most of us think of ourselves as cultured people, and indeed as intellectuals. We went to college for an almost inordinate number of years, and nowadays we prefer exchanging ideas with our acquaintances, rather than just passing the time of day. But what *books* have we read during the last month, or the last year? Probably there are few of us who can't count them on the fingers of one hand.

The American Institute of Public Opinion has regularly been surveying the reading habits of Americans and, through its affiliates abroad, has gathered a great deal of comparable information about English-speaking foreigners. In the United States, it has discovered, no more than 17 per cent of all adults were reading books when the latest survey was made, as compared with 29 per cent in 1937. In Canada, however, the current percentage is 31; in Australia 34; and in England 55. Fifty-seven per cent of high school graduates and 26 per cent of college graduates in this country admitted not having read a single book during the last year.

To test the cultural backgrounds of college graduates, the interviewers submitted the following list of book titles to each of them: AN AMERICAN TRAGEDY, BABBITT, THE CANTERBURY TALES, GULLIVER'S TRAVELS, LEAVES OF GRASS, THE OLD WIVES' TALE, UTOPIA, VANITY FAIR, THE ORIGIN OF THE SPECIES, THE WEALTH OF NATIONS, THE RUBAIYAT and THE HISTORY OF TOM JONES. Nine per cent of the graduates could not name the author of any of them, and 39 per cent could name no more than three of the authors. Fifty-five per cent could not name the title of *any* recently published book. There was no evidence that inexpensive pocket-sized books or book clubs were filling this distressing gap.

We scarcely need undertake any lengthy review of the benefits to be derived from reading, or—in particular—from reading *books*. Rather, a few succinct statements will be sufficient: (1) that the public looks to college-trained people for leadership; (2) that books always have been and still are the principal means for the communication of permanently significant observations and ideas; and (3) that no one has ever completed his education.

The movies, radio and television are stupendous scientific marvels, and it is quite true that each of them is making a contribution to adult education. Radio and television are probably of most benefit to us in bringing us news and analyses of news. Secondarily, they disseminate a great deal of valuable information about psychology through the plays that they present. In both of those respects, by and large, they have considerably surpassed the movies.

But virtually no one ever leaves a movie before its end, no matter how inane it may seem to him. And though we speak frequently of the ease with which we can rid ourselves of time-wasting radio or television shows merely by flicking a switch, we exercise that option, in most instances, only to the extent of moving the dial to another wave length or channel. Most of us will confess that it is much too rarely that we read anything other than our favorite sections of the newspaper, and very infrequently indeed that we start reading a non-professional book.

Almost everyone can think of two or three books about which he has heard frequent comments and which he has wished—rather idly—that he had time to read. Any one of them can provide him a start for his reading program. All that he needs do is to have his secretary phone the public library to ask that it be set aside for him to pick up on his way home. Or if the girl finds that the library doesn't have the volume, she can get the requisite bibliographical information from the librarian and order it from a bookstore or from the publisher.

Usually, something that one finds in the first book will lead him to the reading of others.

Finding time for reading is, of course, a more serious difficulty for physicians than it is for the members of almost any other occupational group. But the doctor can find a little time each day, provided that the book that he has started is at hand when his moments of leisure occur. For that reason, it is probably wise to start several books and then to spot them in various places—perhaps one at the office, one at home and one in the car. Some people, in building new homes, are recessing a bookshelf in the bathroom wall, in order that the time they spend there may serve a double purpose. Most of us for whom reading is not really a chore become interested so quickly that finding willpower to put books down becomes more of a problem than we had anticipated.

President Eliot's "Five-Foot Shelf of Books" and

the program by which he advised that they be read are, of course, at least vaguely familiar to everyone. But it's worth our saying once more that if one reads for just 15 minutes each day, he can read 1,500,000 words—the contents of 20 average-length books—in the course of a single year. Having done so, a doctor will be better company for his associates and for himself. And he will have contributed considerably to his self-esteem.

STEROID CHEMISTRY

Two decades ago, our effective weapons were limited to 10 or 20 drugs. Now we have hundreds of potent agents. For this increase we have the biochemists to thank. Nowadays, by slightly altering the chemical formula of a drug, they can change its therapeutic reactions almost at will.

One of the areas of feverish activity is that of steroid chemistry. Cortisone has been "with us" for no more than a decade, but today its offspring are so numerous as to be baffling.

Some of the newer drugs are aldosterone and the "halogenated steroids."[1] The former is produced by addition of an aldehyde group in the "18" position, the latter by substitution of a halogen in the "9" position of the steroid nucleus. Aldosterone is a potent hormone with regard to mineral-corticoid activity. It retains sodium approximately 400 times as well as hydrocortisone or cortisone, and it is very weak in its glucocorticoid effects. It inhibits the adrenal only slightly, if at all. On the other hand, 9-alpha fluorocortisone produces very effective adrenal inhibition and increases the mineral-corticoid and glucocorticoid responses, with the result that it has proved very helpful in Addison's disease. Both of these drugs are powerful "salt retainers."

We are all familiar with the delta-1 steroids. These compounds are related to cortisone and hydrocortisone, and are produced by adding a double bond in the "1-2" position. These products, metacortandralone and metacortandracin, have a much higher glucocorticoid-mineralocorticoid ratio than either cortisone or hydrocortisone does. In other words, they retain much *less* salt, and therefore do a better therapeutic job than cortisone or hydrocortisone in diseases such as rheumatoid arthritis, periarteritis and lupus erythematosus.

Another new drug is Nilevar[2] (G. D. Searle & Co.). It is a new synthetic hormone of the steroid family having a formula between those of testosterone and estradiol, but also being structurally related to the corticoids. This drug has been reported to have extremely potent nitrogen-retaining qualities, without cortisone-like activities or estrogenic effects. It may prove useful in producing anabolic (or nitrogen-retaining) effects without androgenic effects, and may therefore be helpful in states of under-nutrition and debilitating illness.

Alteration in chemical structure of the molecules may have other effects in protein metabolism. Thus, hydrocortisone and corticosterone (compound B) differ only by one hydroxyl group, and yet hydrocortisone decreases resistance to infection and depresses immune responses, whereas corticosterone in the same dosage does not have these effects. There is some evidence that genetic difference in susceptibility to infection is correlated with the ratio of secretion of compounds "B" and "F."

We are just beginning to uncover the possibilities of steroidal activity. There is every indication that the next decade will see further elucidation of these complex biological phenomena, of protein, carbohydrate and mineral metabolism, by chemists experimenting with synthetic steroids.

1. Kelley, V. C.: Newer steroids. Am. Practitioner, 7:741-749, (May) 1956.
2. Proceedings of a Conference on the Clinical Use of Anabolic Agents. Chicago, Searle Research Laboratories, 1956.
3. Kass, E. H., Hechter, O., Mou, T. W., and Lurie, M. B.: Comparative effects of corticosterone and hydrocortisone on resistance to infection. Trans. Ass. Am. Physicians, 68:92-100, 1955.

CANADIAN DOCTORS HAVE THEIR TROUBLES

One of the reasons why doctors fear fixed fee schedules, whether developed by Blue Shield, by insurance companies or by instrumentalities of government, has been clearly pointed out by a news story in the Regina, Saskatchewan, LEADER-POST for July 28, 1956.

The Swift Current Health Region No. 1, centered at Shaunavon, apparently is a governmental set-up that employs physicians on a piecework basis. The newspaper reported that at a recent meeting of that authority, the participating doctors asked the powers-that-be for an increase in rates. The report contained no mention of the actual current rates or of the amounts requested, but the spokesman for the physicians is said to have "pointed out that an increase [in payment] to 100 per cent of the 1949 [private practice] fees would still only be 83 per cent of the [private practice] rates as of 1956."

In answer to the physicians, "one of the accredited delegates moved that the Health Region carry on as it is today; and said that the time had come to 'call the bluff' of the medicos, and suggested that if the doctors did not like the pay that they could 'move out.' "

Other delegates are reported to have spoken, though rather restrainedly, in defense of the physicians' point of view, and the Health Region finally voted to "bargain" with the doctors.

Obviously, we should dislike to see Iowa physicians subjected to the rule of such an authority as the Swift Current Health Region. But in any case it is certainly well for all doctors to recognize the dangers that are inherent in fixed fee schedules, even under the system of practice that now exists in this state.

Medical Practice in Europe

While touring most of the countries of western Europe this past summer, one of the members of the JOURNAL'S editorial board, Dr. A. G. Felter, of Van Meter, had various opportunities to collect professional and lay attitudes toward the systems of socialized medicine that are in effect there. Physicians, he discovered, are not inclined to condemn such schemes unreservedly, and the citizens and taxpayers are not unanimous in approving it.

A DOCTOR'S EVALUATION

At Charing Cross Hospital, London, a Dr. Elliot described and discussed the English plan with Dr. Felter at considerable length. Dr. Elliot is 45, a consulting neurologist at Charing Cross and at Moorfields Hospital and a lecturer at London University. He explained that he and his colleagues choose the amount of their time that they want to devote to state medicine and are paid for that time. Ninety-eight per cent of physicians, he said, engage also in private practice. He himself devotes eight half-days a week to government work and is paid £3,600 per year ($10,080). His income from private practice is, of course, in addition, but he says that his earnings from the treatment of private patients are currently no more than a third of what they were in 1950, and that his experience in that regard is more or less typical.

Dr. Elliot freely discussed the advantages and disadvantages of England's socialized medicine as he sees them. Among the disadvantages, he gives first place to what seems to him a definite, though indefinable, loss of freedom and initiative that physicians have experienced. Younger men, in particular, tend more and more to work by the clock. The doctor's time is wasted more frequently than it used to be by people who have no more than trivial complaints. General practitioners, since they are paid by capitation, tend to take on too many patients. Dr. Elliot thinks that if they were limited to "a panel of 2,000"—i.e., 2,000 patients each—they could do better work and still make a decent living, but as things are, they either make drudges of themselves or are content with relatively low incomes. All in all, it is his opinion that medicine in England is no longer financially attractive as a life's work.

But he is willing to grant that there are some things to be said in favor of the system. Generally, the English people aren't very well off, and there is some doubt whether people would seek the medical care they need if they were expected to pay fees for it. Wealthy people lost half of their substance in World War I and the other half in World War II, with the result that hospitals could no longer rely upon voluntary contributions for their support. The government's health plan is deserving of credit for keeping them in operation. In addition, the government has seen to it that economically unattractive areas have their share of doctors.

The physician can count on collecting all of what the government owes him, Dr. Elliot pointed out, for though people sometimes might neglect to pay their doctor bills, they all pay their taxes.

If a physician wants to go to a convention or take postgraduate work, Dr. Elliot says that a committee of his colleagues passes upon his request. If the application is approved, his traveling expenses are paid for him, and his salary continues during his absence. Research and quality of practice are advancing.

Dr. Elliot expressed the opinion that American doctors are overly materialistic, but he acknowledged that they have made significant contributions to medical progress.

NEWS AND COMMENT IN THE BRITISH PRESS

News stories and editorials in the British press provided Dr. Felter some additional information. One daily paper, while he was in England, reported that the average weekly earnings of a general practitioner amount to £44 per week ($123.20). His income during a year would then be $6,406.40. Expenses, estimated at 35 per cent, and taxes must be taken from that sum.

Recently, an effort was made to get the G-P's weekly gross increased by £10 ($28), but despite the argument that the "rise," as the British call it, would be no more than enough to restore the purchasing power that his current wage once had, the Minister of Health refused to consider the request.

An editorial in the London EVENING NEWS for August 29 said that some family doctors felt they were being used as agents for hospitals, rather than as the main strength of the national health service. The editors concluded by saying that care must be taken lest the ordinary G-P, "combating paper-work, organization and prejudice, as well as sickness, does not crumble in frustration under the dead weight from above."

SOCIALIZED MEDICINE ON THE CONTINENT

When Dr. Felter was in Switzerland, he found that everyone who is employed there has health insurance. If he gets sick, he calls a doctor—or two if necessary—and has to pay no more than 10 per cent of the bill. If disabled, he is entitled to 80 per cent of his former salary, but it is said that few people take advantage of that opportunity.

In Copenhagen, Dr. Felter found that one pays the equivalent of 18 cents a day for all hospital

(Continued on page 561)

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

INTERNAL MEDICINE: A PHYSIOLOGIC AND CLINICAL APPROACH TO DISEASE, by *Robert P. McCombs*, M.D. (Chicago, The Year Book Publishers, 1956. $10.00).

ROENTGEN SIGNS IN CLINICAL DIAGNOSIS, by *Isadore Meschan*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $20.00).

DERMATOLOGY, by *Donald M. Pillsbury*, M.D., *Walter B. Shelley*, M.D., and *Albert M. Kligman*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $20.00).

AGEING IN TRANSIENT TISSUES, VOL. II, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Elaine C. P. Miller*. (Boston, Little, Brown and Company, 1956. $6.75).

MANAGEMENT OF EMOTIONAL PROBLEMS IN MEDICAL PRACTICE, ed. by *Samuel Liebman*, M.D. (Philadelphia, J. B. Lippincott Company, 1956. $5.00).

CANCER, SECOND EDITION, by *Lauren V. Ackerman*, M.D., and *Juan A. del Regato*, M.D. (St. Louis, C. V. Mosby Company, 1954. $22.50).

EPILEPSY AND THE LAW, by *Roscoe L. Barrow* and *Howard D. Fabing*, M.D. (New York, Hoeber-Harper, 1956. $5.50).

INTERNAL SECRETIONS OF THE PANCREAS, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Cecilia M. O'Connor*, B.Sc. (Boston, Little, Brown and Company, 1956. $7.00).

BOOK REVIEWS

THERAPY OF FUNGUS DISEASES, AN INTERNATIONAL SYMPOSIUM, ed. by *Thomas R. Sternberg*, M.D., and *Victory D. Newcomer*, M.D. (Boston, Little, Brown and Company, 1955. $7.50).

This book of over 300 pages is a collection of papers presented at a symposium on the therapy of fungus infections held at the University of California at Los Angeles. The list of contributors is impressive, containing representatives from 24 states and eight foreign countries. One recognizes the names of many of the world's outstanding mycologists, as well as clinicians who have given special attention to fungus diseases.

The contents are not limited entirely to therapy, despite the title that has been given to the volume. One finds much interesting information pertaining to the etiology and spread of these diseases, as well as reports from several foreign countries on the types of infections that are encountered there. The deep mycotic infections are included, as well as the dermatophytes. Many reports concern Candida infections, and a little less than a third of the book is devoted to reports on the study and use of nystatin.

This book makes interesting reading for anyone who deals regularly with fungus infections, and it can also be considered as a most up-to-date and authoritative reference.—*John G. Thomsen*, M.D.

THE MANAGEMENT OF MENSTRUAL DISORDERS, by *Frederic Fluhmann*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $8.50).

This book thoroughly reviews the physiology of the menstrual cycle, describing and charting the action of the various hormones. After this review of the normal physiology of menstruation and ovulation, there is a discussion of the systemic changes that occur during the menstrual cycle. The problem of the first menstrual cycle and the menstrual disorders of adolescence are reviewed.

The factors responsible for unusual uterine bleeding are thoroughly discussed and described, and treatment is outlined for menorrhagia and metrorrhagia of various causes. After reading the interesting chapter on dysmenorrhea, one is left with the impression that the author has added very little to the treatment of that condition, but I feel that the book as a whole is of definite value for those who need a thorough understanding of the physiology of the menstrual disorders, and only with such an understanding can one's treatment achieve the desired results.—*H. Kirby Shiffler*, M.D.

DRUGS IN CURRENT USE, 1955, ed. by *Walter Modell*, M.D. (New York City, Springer Publishing Co., Inc., 1955. $2.00).

Dr. Modell, like many of his colleagues, apparently had been perplexed by the tremendous array of drugs available to physicians nowadays, and in an effort to systematize them he has compiled a dictionary or handbook on the subject. He hopes to issue revised editions yearly.

Drugs are listed alphabetically, and under each, the purpose, absorption, actions and uses, administration, and various preparations and doses are given. With certain groups of drugs such as the sulfonamides and the hormones, brief essays are included. Some proprietary names are listed.

This little monograph (a paper-backed book) would fit well into every doctor's office library, and should be made available on the various floors of hospitals. It is easier to consult than is the ubiquitous PHYSICIANS DESK REFERENCE, but unlike it, DRUGS IN CURRENT USE, 1955 is not cross-indexed. Information on dosages is extremely brief, and sometimes vague. Perhaps this is as it should be, but it seems to this reviewer that therein lies a deficiency that should be corrected. It is a pleasure to note, however, that all dosages are expressed metric units. Perhaps some day, we shall all come of age and discard the apothecary system altogether. All in all, however, this is an excellent, rather complete and inexpensive book on drugs in current use.—*Daniel A. Glomset*, M.D.

Pulmonary Carcinoma, ed. by *Edgar Mayer,* M.D., and *Herbert C. Maier,* M.D. (New York City, New York University Press, 1956. $15.00).

This book is a very thorough and inclusive presentation of the subject of pulmonary carcinoma. It is edited by two distinguished physicians and there are a number of illustrious contributing editors, among them being Dr. Cornelius P. Rhoads, director of the Sloan-Kettering Institute for Cancer Research, and Dr. George N. Papanicolaou, of cytological fame.

There are many interesting chapters in the volume. The chapters on "Modern Concepts of Cancer Research" and "Biology of Cancer" provide general information on those subjects, besides dealing specifically with pulmonary malignancy. Those two chapters alone cannot fail to be of great interest to practicing physicians whose daily work permits little opportunity for keeping abreast of developments in research.

The pathology, the environmental factors, the physiologic aspects of this malignancy, and the complete clinical and diagnostic phases are covered in detail. Also, the diagnostic aids such as roentgenology, cytology and bronchoscopy are thoroughly discussed. The subject matter extends beyond diagnosis to specific therapy, and then includes the psychological aspects and the management of the surgically incurable patient.

The entire subject is covered, from the very discouraging results of mass x-ray surveys in detecting early cases to the hopeful outlook for the future, based on present experimentation. The book has excellent photographs and excellent x-ray reproductions, the latter being of particular importance in the presentation of pulmonary diseases. The appendix which concludes the book presents many actual case histories, from which some lessons can be learned in retrospect.

The book is highly recommended.—*Daniel F. Crowley, Jr.,* M.D.

J.A.M.A. Queries and Minor Notes (St. Louis, C. V. Mosby Company, 1956. $5.50).

Most doctors are familiar with the J.A.M.A. Queries and Minor Notes, as they appear from week to week. This small book is a compendium of carefully selected "Queries" from last year's issues. The queries have been carefully categorized according to subject matter, the groupings being "Body as a Whole," "Integumentary System," "Musculoskeletal System," etc. Under each heading are a few questions covering rather scattered bits of subject matter.

The volume provides interesting reading when one has a few minutes of free time, but it has relatively little value as a reference, inasmuch as the treatment of subject-matter fields is rather spotty, and of course all of the questions that a particular doctor might have are not covered.

The editing of each query has been done exceedingly well, and the reading is easy. But though the book might be purchased by someone who likes to read interesting medical questions and answers in his spare time, I cannot believe that it will find a wide market.—*Daniel A. Glomset,* M.D.

Textbook of Urology, by *Victor F. Marshall,* M.D. (New York City, Paul B. Hoeber, Inc., 1956. $5.50).

This newest text on urology has been compiled by Victor F. Marshall, M.D., associate professor of clinical surgery (urology), Cornell; attending surgeon-in-charge (urology), James Buchanan Brady Foundation of New York Hospital.

It is probably the most concise elementary textbook on urology that it has ever been my privilege to review. It is a very systematic study of the patient, leaving out all the unnecessary details. It would be an excellent text for any student of urology, for the teaching of nurses, or for physicians who need a ready source of information. It is well illustrated, and in consequence it is particularly clear and easy to understand.

It is to be recommended as one of the best texts on urology that have become available in recent years. —*Charles W. Latchem,* M.D.

Medical Practice in Europe

(Continued on page 559)

services plus inpatient medical care and surgery, provided that one goes to a government institution. In Stockholm's 1700-bed hospital, no charges at all are assessed, unless the patient requires a single room or special services. Yet Dr. Felter found that some Swedes aren't happy about the system. A hairdresser with whom he talked complained about the fact that wealthy people are entitled to free care along with those who must work for a living.

Wherever he went, Dr. Felter was told that, good or bad, compulsory health insurance is firmly established. Dr. Elliot told him that it might take 20 years for England to find solutions for all of the inequities in its system, but that there was no great possibility of its returning to private enterprise as regards either hospitalization or medical practice.

FORD GIFTS TO PRIVATE MEDICAL SCHOOLS

On September 16, the Ford Foundation announced gifts totaling $21,750,000 to 44 privately supported medical schools in the United States. Each of 43 four-year schools got $500,000, and $250,000 went to the two-year school at Dartmouth College.

The recipient schools in the vicinity of Iowa are Creighton University, University of Chicago, Northwestern University, Chicago Medical School, Marquette University, St. Louis University, and Washington University at St. Louis. The funds are for the strengthening of instruction.

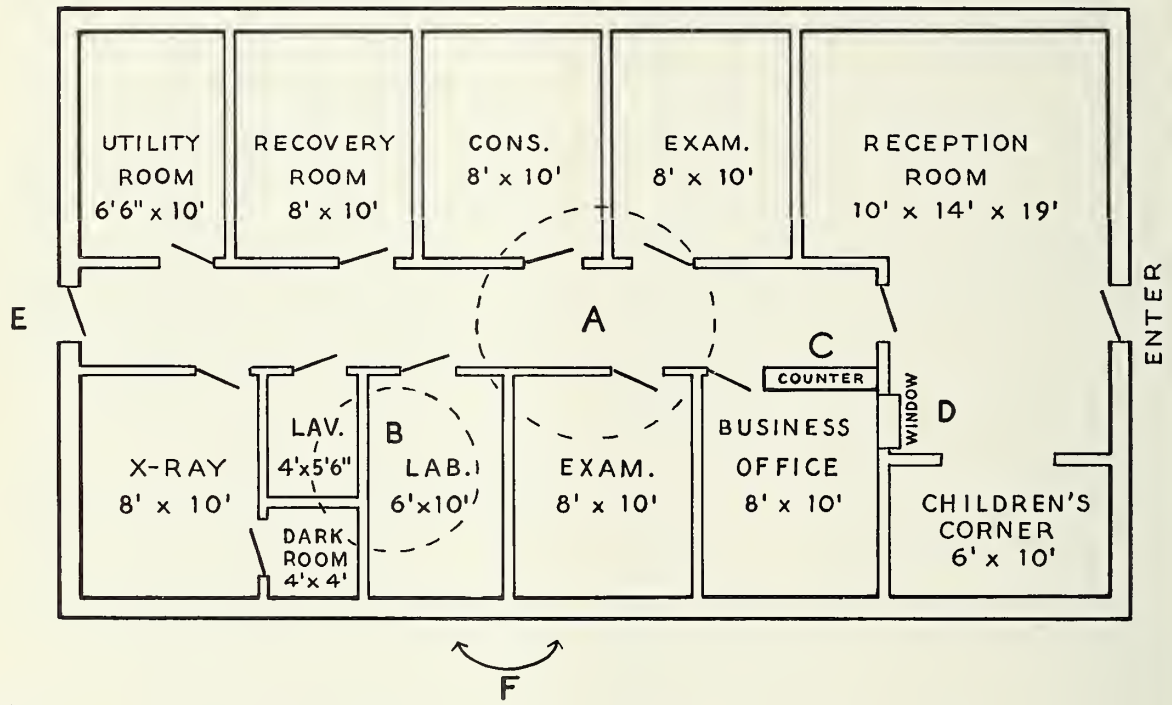
THE DOCTOR'S BUSINESS



Planning Your Office—III

MILLARD K. MILLS
WATERLOO

SAMPLE FLOOR PLAN FOR SOLO PRACTITIONER'S SUITE



Note:

A—Doctor's primary working area is concentrated, thereby saving both time and energy for him.

B—Major plumbing is also in a concentrated area, thus reducing cost.

C—Counter opens to hall, enabling secretary to see all departing patients and speak with them in privacy.

D—Window for greeting incoming patients is small but adequate. Minimum possibility for overhearing conversations in business office, since patients will be seated in opposite end of reception room.

E—Private entrance for doctor.

F—In a one-girl office, laboratory and examining room should be reversed, and door or arch placed between laboratory and business office so that the secretary can be near counter and window at all times.

Mr. Mills is general manager of Professional Management.

Iowa Academy of General Practice

POSTGRADUATE STUDY

In September the Iowa Chapter of the American Academy of General Practice successfully completed its Annual Postgraduate Course at Des Moines, with a large percentage of its members taking advantage of the well-planned series of lectures.

That was a part of the year-round program by which the Iowa Chapter assists its member physicians in meeting the postgraduate-study requirements that the Academy sets for them. Members of the AAGP must complete 150 hours of postgraduate work every three years. The Academy is the only medical organization that insists upon postgraduate study as a condition for maintenance of membership.

Following its custom of providing additional courses in various sections of the state, the Iowa Chapter has scheduled lectures at Waterloo in November. Doctors from throughout Iowa are invited to attend, and physicians in the northeastern part of the state will find them particularly convenient.

IAGP REGIONAL POSTGRADUATE COURSE

Elks Club, Waterloo

Thursday, November 15, 1956

The lecturers are staff members at the Mayo Clinic, Rochester

Morning Session

"Treatment of Allergic Reactions to Drugs"—*L. E. Prickman,* M.D.
"Management of Congestive Heart Failure"—*Milton Anderson,* M.D.
"Management of the Patient with Duodenal Ulcer" *J. C. Cain,* M.D.
"Present Status of Tranquilizing Drugs"—*R. M. Steinhilber,* M.D.

Luncheon

Speaker to be announced

Afternoon Session

"Allergic Problems of Everyday Practice"—*Dr. Prickman*
"Management of Coronary Heart Disease and Acute Myocardial Infarction"—*Dr. Anderson*
"The Hiatal Hernia Problem"—*Dr Cain*
"Present Day Pharmaceuticals of Special Value" —*Dr. Steinhilber*
Question and Answer Panel

FALL MEETING—IOWA AND NEBRASKA TRUDEAU SOCIETIES

Hotel Chieftain **Council Bluffs, Iowa**

October 28, 1956

Moderator: J. McLean Smith, M.D.

9:00 a.m. Cutaneous Manifestations of Deep Mycoses

Christian E. Radcliffe, M.D., Department of Dermatology, State University of Iowa

9:45 a.m. Laboratory Diagnosis of Fungus Disease

Herbert Hasenclever, Ph.D., Department of Bacteriology, State University of Iowa

10:30 a.m. Intermission

10:45 a.m. Newer Knowledge of Fungus Diseases of the Lungs

Michael L. Furcolow, M.D., Medical Director U. S. Public Health Communicable Disease Center, Kansas City, Kansas

11:30 a.m. Panel Discussion: Clinical Management of Fungus Diseases

Doctors Smith (moderator), Hasenclever, Radcliffe, and Furcolow

12:30 a.m. Luncheon and Business Meeting

Moderator: Daniel F. Crowley, Jr., M.D.

2:00 p.m. Treatment of Traumatic Chest Injuries

Ralph A. Dorner, M.D., Department of Surgery, Iowa Methodist Hospital, Des Moines, Iowa

2:45 p.m. Spontaneous Pneumothorax and Lung Cysts

Johann L. Ehrenhaft, M.D., Department of Surgery, State University of Iowa

Application has been made to the AAGP for classification of this program as to postgraduate study credit.
All physicians are invited to attend.
No registration fee.

ACHROMYCIN



ACHROMYCIN*

Tetracycline *Lederle*

for prophylaxis and treatment of

obstetric infections

Posner and his colleagues[1] have reported on the use of tetracycline (ACHROMYCIN) in 96 cases of obstetric complications, including unsterile delivery, premature rupture of the membranes, endometritis, parametritis, and other conditions. They conclude that this antibiotic is ideally suited for these uses.

Other investigators have shown ACHROMYCIN to be equally useful in surgery and gynecology and virtually every other field of medicine. This outstanding antibiotic is effective against a wide variety of infections. It diffuses and penetrates rapidly to provide prompt control of infection. Side effects, if any, are negligible.

Every gram of ACHROMYCIN is made in Lederle's own laboratories and offered *only* under the Lederle label—your assurance of quality. It is available in a *complete* line of dosage forms, including

ACHROMYCIN SF

ACHROMYCIN with STRESS FORMULA VITAMINS. Attacks the infection, bolsters the patient's natural defenses, thereby speeds recovery. Especially useful in severe or prolonged illness. Stress formula as suggested by the National Research Council.

SF Capsules, 250 mg.

SF Oral Suspension, 125 mg. per teaspoonful (5 cc.)

For more rapid and complete absorption. Offered only by Lederle!

dry-filled sealed capsules

[1]Posner, A. C., *et al.;* Further Observations on the Use of Tetracycline Hydrochloride in Prophylaxis and Treatment of Obstetric Infections, *Antibiotics Annual* 1954-55, pp. 594-598.

Lederle

LEDERLE LABORATORIES DIVISION
AMERICAN CYANAMID COMPANY
PEARL RIVER, NEW YORK

*REG. U.S. PAT. OFF.

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STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

PROCEDURES FOR OBTAINING LICENSE TO MARRY

The following outline is presented in an attempt to answer some of the questions and clarify some of the problems that arise from premarital examination requirements.

A. Procedures for persons living in Iowa who plan to be married in Iowa:

1. An examination, which shall include blood test, must be obtained by both parties to be married, from a physician licensed to practice in Iowa. (Act of the 49th General Assembly, Senate File 2, April 4, 1941.)

2. The blood test must be performed by the State Hygienic Laboratory at Iowa City or by such other public and private laboratories in the state as are approved by the Iowa State Department of Health. Listings of such approved laboratories are available from each of the district clerks of court.

3. If the blood specimen is to be sent to the State Hygienic Laboratory at Iowa City, the applicant should allow sufficient time in his marriage plans for mailing of the specimen and return of the results by mail. That is usually three (3) to five (5) days.

4. The examination and blood test must be made within twenty (20) days prior to making application for license to marry.

5. At the time application is made for license to marry, the completed certificate of examination must be presented to the clerk of the district court of the county in which the marriage is to be solemnized.

6. There is no waiting period required in Iowa following application for license to marry.

7. License to marry may be obtained by either of the parties to a marriage. Both applicants need not be present. The license fee is three dollars ($3.00).

8. Marriages must be solemnized within twenty (20) days following the issuance of license in the county of issuance.

9. Minimum age requirements for marriage in Iowa are: twenty-one (21) for the male and eighteen (18) for the female. Males between sixteen (16) and twenty-one (21) and females between fourteen (14) and eighteen (18) may marry with written consent of parents.

B. Procedure for persons living in Iowa but planning marriage in another state.

1. Premarital examination requirements of other states may be satisfied by having your physician send a blood specimen to the State Hygienic Laboratory at Iowa City. *The physician should write on the face of the laboratory slip which accompanies the specimen or attach a note to the effect that the applicant plans to marry in another state giving the name of that state.* The State Laboratory will send an examination certificate on the proper state's form for the physician to complete if the Iowa forms are not acceptable. The *full* name of the patient, number, street address and city must be given.

2. Other requirements such as waiting period, minimum age requirements, who may make application, period of time blood test is honored, vary from state to state. Therefore, it is suggested that the applicant write to the State Department of Health of the state in which the marriage is to take place or to the State Hygienic Laboratory at Iowa City.

C. Procedure for persons who do not live in Iowa but who plan to marry in Iowa.

The following outline applies to those persons who wish to complete their examination requirements prior to coming to Iowa to be married. For example, a person who lives in the State of Washington and plans to arrive in Iowa on June 21 and to be married on June 22 could have all of his examination requirements completed in Washington prior to departing for Iowa.

1. An examination, which shall include a blood test, must be obtained by both parties to the marriage from a physician licensed to practice in the state where the applicant lives.

2. The blood test may be performed by the state health department laboratory of the state where the applicant lives or a laboratory of the Public Health Service or Armed Forces, laboratories of the health departments of New York City and the District of Columbia, and laboratories of the provincial health departments of Canada.

3. The official form of the state, district or province is acceptable in Iowa provided that state has a blood test requirement comparable to that of Iowa. Residents of states not having a comparable blood test requirement must use the Iowa Non-Resident form.

4. Branch laboratories or approved laboratories other than those of the state health departments of

other states are not acceptable to perform blood tests for marriage in Iowa.

5. Minimum age, time requirements, etc., are the same as for persons living in Iowa as listed in paragraphs four (4) through nine (9) of Section A of this outline.

MEDICAL INDIGENTS ELIGIBLE FOR SALK VACCINE

On August 20, the following note regarding the use that doctors may make of poliomyelitis vaccine which was purchased by and which they have received from the Iowa State Health Department was sent to the chairmen of all county poliomyelitis vaccine committees:

"We have just been informed by the U. S. Public Health Service that any poliomyelitis vaccine purchased by any state department of health can be distributed for use only for persons under 20 and for pregnant women.

"We are calling this fact to your attention realizing that under our recent instructions your county may have made arrangements to give poliomyelitis vaccine received from us to any medical hardship person regardless of age. Subsequently, we can no longer send you poliomyelitis vaccine for persons other than those under 20 or for women who are expecting to have babies. Therefore, your monthly reports of vaccine used that you send to us should show that subsequent to the month of August you have not used vaccine from us except for the groups indicated.

"From funds voted to the Iowa State Department of Health by the last legislature, we have enough money to take care of vaccine that you might previously have used for those over 20, but no funds to continue sending you poliomyelitis vaccine for persons over 20."

MORBIDITY REPORT FOR MONTH OF AUGUST

Disease	*1956 Aug.*	*1956 July*	*1955 Aug.*	*Most Cases Reported From These Counties*
Diphtheria	0	0	0	
Scarlet Fever	9	14	11	Black Hawk 2, others scattered 1 to a county
Typhoid Fever	3	5	1	Cerro Gordo 1, Jackson 1, Story 1
Smallpox	0	0	0	
Measles	103	330	61	Linn, Story, Mills, Dubuque, Clay
Whooping Cough	51	26	46	Buena Vista, Black Hawk, Polk, Cerro Gordo
Brucellosis	18	15	24	Dubuque 3, Jasper 2, Woodbury 2, others scattered 1 to a county
Chickenpox	28	77	10	Dubuque, Scott, Linn, Polk
Meningococcus Meningitis	3	0	0	Polk 2, Clarke 1
Mumps	32	107	68	Linn, Dubuque, Des Moines, Scott, Clay
Poliomyelitis	186	50	220	Polk, Black Hawk, Cerro Gordo, Dubuque, Story, others scattered
Inf. Hepatitis	16	22	32	Butler 3, Polk 3, Allamakee 2, Clinton 2, others scattered
Rabies in Animals	15	14	6	O'Brien 2, Webster 2, others scattered 1 to a county
Malaria	0	0	0	
Psittacosis	1	0	0	Webster 1
Q Fever	0	0	0	
Tuberculosis	31	37	46	For the State
Syphilis	98	88	76	For the State
Gonorrhea	55	54	50	For the State
Histoplasmosis	2	2	0	Keokuk 1, Iowa 1
Encephalitis	2	1	1	Black Hawk 1, Dallas 1
Salmonellosis	7	4	1	Polk 5, Cerro Gordo 1, Johnson 1
Meningitis (unspec.)	8	2	1	Polk 6, Hamilton 1, Madison 1
Aseptic Meningitis	2	5	0	Polk 1, Warren 1

INDICATIONS FOR ANTI-RABIES TREATMENT

In Iowa since January 1, 1940, two persons have died of rabies, and during the same period three persons have died of unwarranted anti-rabies treatment.

An editorial in J.A.M.A.[1] on the indications for anti-rabies vaccine treatment (Pasteur method) persons who have been exposed to the bite or to the saliva of a rabid animal contains the following statements:

"The exact incidence of these postvaccinal reactions is not known, but a significant number of neuroparalytic sequelae, including some fatalities, do occur. Thus, in deciding whether to administer antirabies vaccine, the physician must balance the risk of potentially serious postvaccinal reaction against the possibility of the development of rabies.

"Indications for vaccine treatment in cases of animal bites were considered by the first session of the World Health Organization's Expert Committee on Rabies, held in April, 1950. The Committee published detailed indications for the use of vaccine that were designed to avoid, as much as possible, indiscriminate use of the Pasteur treatment.[2] Use of the Pasteur treatment was favored only in cases of bites and licks of uncaptured, wild or rabid animals and in cases of multiple bites of the head, neck and shoulders. Similar conservatism has been advocated by Sellers, who considers anti-rabic treatment contraindicated in the following circumstances: (1) when there is no broken skin anywhere on the body, including face or mouth; (2) if previous wounds are known to be 24 hours old or are covered with an unbroken scab; (3) if the tooth wounds were made through untorn clothing (such wounds are usually bruises); (4) if exposure is limited to handling only the dog or objects contaminated with the saliva, or to drinking the milk of rabid cows or goats; (5) if the wounds were inflicted not less than seven days prior to detection of visible signs of disease; and (6) if the animal remains normal for as long as seven days, regardless of the time elapsed since the last treatment, according to Sellers. He recommends that retreatment be lim-

ited in any case to a short booster series of five or six injections."

In regard to persons who have been treated with vaccine and subsequently reexposed, the WHO report says that no additional treatment is necessary if the reexposure occurs within three months of the first treatment, unless the second exposure is of a severe type. It also states that if the interval is between three and six months, two reinforcing doses of vaccine, one week apart, are indicated, whereas if more than six months' time has elapsed, the treatment should be on the same basis as if it were an original exposure.

ANTI-RABIES SERUM

Rabies antiserum is a relatively new product. It does not replace anti-rabies vaccine (Pasteur treatment), but serves as an adjunct in certain situations. The primary function of antiserum, so far as is shown by experimental evidence published to date, is to establish protective titers of antibody immediately after exposure and thus to bridge the gap between the exposure and the time when vaccine induces effective antibody response. It is intended to provide immediate passive protection. It is short-lasting, since it does not stimulate antibody production in the exposed person. Antiserum in indicated especially when the incubation period is likely to be short, such as may be the case when there have been multiple bites about the head, face or neck. It should be administered preferably within 24 hours after exposure, and in all instances within 72 hours. The dosage varies with the patient's weight and the length of time that has elapsed before administration.

INDICATIONS FOR SPECIFIC POST-EXPOSURE TREATMENT

Nature of Exposure	*Condition of Biting Animal*		*Recommended Treatment*
	AT THE TIME OF EXPOSURE	DURING OBSERVATION PERIOD	
I. No Lesions; only indirect contact	rabid	.....	none*
II. Licks: (1) unabraded skin	rabid	.....	none*
(2) abraded skin & abraded or unabraded mucosa	(a) healthy	healthy	none
	(b) healthy	clinical signs of rabies or proven rabid	start vaccine at first signs of rabies in animal
	(c) signs suggestive of rabies	healthy	start vaccine immediately; stop treatment if animal is normal on 5th day after exposure**
	(d) rabid, escaped, killed or unknown	.....	start vaccine immediately
III. Bites: (1) simple exposure	(a) healthy	healthy	none
	(b) healthy	clinical signs of rabies or proven rabid	start vaccine at first signs of rabies in animal
	(c) signs suggestive of rabies	healthy	start vaccine immediately; stop treatment if animal is normal on 5th day after exposure**
	(d) rabid, escaped, killed, or unknown or any bite by a jackal, fox, wolf, or other wild animal	.....	start vaccine immediately
(2) severe exposure; (multiple or face, head or neck bites)	(a) healthy	healthy	hyperimmune serum immediately; no vaccine as long as animal remains normal
	(b) healthy	clinical signs of rabies or proven rabid	hyperimmune serum immediately; start vaccine at first sign of rabies
	(c) signs suggestive of rabies	healthy	hyperimmune serum immediately, followed by vaccine; vaccine may be stopped if animal is normal on 5th day after exposure
	(d) rabid, escaped, killed, or unknown, any bite by wild animal	.....	hyperimmune serum immediately, followed by vaccine

* Start vaccine immediately in young children and in patients where a reliable history cannot be obtained.

** An alternative treatment would be to give hyperimmune serum and not start vaccine as long as the animal remained normal.

NOTE: To be effective, hyperimmune serum must be given within 72 hours of exposure.
Dose: 0.5 ml. per kg. of body weight.
These indications apply equally well whether or not the biting animal has been previously vaccinated.

The use of antiserum does not alter the indications for the use of vaccine.

Since rabies antiserum is of equine origin and may cause serum sickness in man, it is necessary for the physician to test his patient for immediate sensitivity before administering the serum.

REFERENCES

1. Editorial, J.A.M.A., **149**:1318-1319, (Aug.) 1952.
2. Second Report, World Health Organization Expert Committee on Rabies, Tech. Report Series No. 82, April, 1954.

MAJOR DIAGNOSTIC SERVICES STATE HYGIENIC LABORATORY

The following is a list of the major laboratory diagnostic services available to Iowa physicians as of July 1, 1956.

1. Agglutination Tests
   - Brucellosis—human and animal
   - Rocky Mt. Spotted Fever—Typhus group
   - Salmonella Typhoid—Paratyphoid group
   - Trichinosis
   - Tularemia
   - Leptospirosis[1, 3]
2. Blood Cultures
   - Anthrax—human and animal
   - Brucellosis
   - Salmonella group (typhoid and parathyphoid)
   - Miscellaneous (fee commensurate with the work involved)
3. Cultures
   - Anthrax—human and animal tissue
   - Brucella—for species identification
   - Diphtheria—swabs
   - Feces—salmonella and shigella group
   - Food poisoning
   - Fungi—ringworm, histoplasmosis, etc.
   - Pleural fluid—tuberculosis
   - Saliva—L. acidophilus count for dental caries
   - Spinal Fluid—meningitis, brucellosis, etc.
   - Sputum—pneumococci, tuberculosis
   - Streptococcus sore throat—swabs
4. Smears
   - Fungi and yeasts
   - Gonorrhea
   - Sputum—tuberculosis
   - Vincent's angina
5. Parasitic Diseases
   - Blood—Thick and thin films for malaria and other blood parasites
   - Feces
   - Sputum
   - Urine
   - Pork tissue—Trichina
   - Toxoplasmosis[3, 4]—Sabin or dye test—send tube of sterile unpreserved clotted blood
6. Rabies—human and animal
   - Brain smears for Negri bodies
   - Mouse inoculation test
7. Animal inoculation tests—guinea pigs
   - Anthrax
   - Diphtheria—virulence test
   - Tuberculosis material ($5.00 fee charged to cover actual cost of two animals and food for six weeks)
8. Serologic and allied tests
   - Infectious mononucleosis
   - Heterophile antibody
   - Syphilis
     - Blood
       - Kolmer complement fixation test—qualitative and quantitative
       - VDRL test—qualitative and quantitative
       - Filter paper microscopic (FPM) blood of infants only
       - Treponema pallidum immobilization test[5, 6]
       - Treponema pallidum complement fixation test[6]
     - Spinal fluid
       - Colloidal gold
       - Kolmer complement fixation test—quantitative
9. Special complement fixation tests[1, 3] (paired specimens essential, 1st specimen held until 2nd specimen received)
   - Coccidioidomycosis
   - Histoplasmosis
   - Virus & rickettsial diseases
     - Encephalomyelitis
       - Eastern & western equine
       - Lymphocytic choriomeningitis
       - Lymphogranuloma venereum
       - Psittacosis[1, 3]
       - Rickettsial pox
       - Rocky Mt. spotted fever
       - Typhus fever
         - Murine
         - Epidemic
       - Mumps
       - St. Louis
       - "Q" fever
10. Water Analyses ($2.00 fee)[2] Specimens fee exempt only when collected by staff of the Iowa State Department of Health in checking sources of illness or health hazards
    - Bacterial tests
    - Chemical tests
      - Fluoride
      - Hardness
      - Iron
      - Nitrate
      - Complete chemical analysis (fee commensurate with work involved)

CONTAINERS DISTRIBUTED TO PHYSICIANS

- Agglutination tests
- Diphtheria—swab
- Serologic tests for syphilis
- Slide container for G.C. smears, malaria and Vincent's angina
- Tuberculosis, sputum and animal inoculation
- Special—for immediate use only:
  - Blood culture
  - Feces—typhoid
  - Feces—parasitic (2 vial method)
  - Water

[1] One specimen taken during acute phase and another 10 days to several weeks later depending on the disease.
[2] Fee established tentatively due to inadequate legislative appropriation.
[3] Date of illness onset, date of specimen collection, contact source if known, whether 1st or 2nd specimen and major symptoms should accompany specimen.
[4] Limited to suspected congenital toxoplasmosis and/or mothers of suspected congenital cases.
[5] Special container and procedure required.
[6] Restricted to special problem cases. Request information from the laboratory.

Woman's Auxiliary News

OUR PRESIDENT SAYS—

Summer is over, and signs of fall are everywhere. It is the time of beginning again. With the reopening of schools, new routines began for all of us. Nature gives us gentle but insistent reminders. She warns and threatens us with a few cold and rainy days, with scudding clouds and small, wintry blasts. If we take heed, and like the knowing members of the animal kingdom begin to bustle, plan and ready ourselves for winter, we can have peace of mind and a measure of leisure, later on, for enjoying the colors, the almost balmy breezes, the warm sun and cool nights of her Indian summer. Let us take a lession from Nature, by planning well and putting our houses in order for the coming winter. If you lack inspiration and ideas for planning, take time out to watch Mother Nature as she carefully puts the green world to sleep, and sweeps clean the summer playgrounds.

Plan to be active in your church, to work hard at being a good wife and mother, to be an informed doctor's wife and to bring the best possible health to your community and to your family.

You have had opportunities to watch and listen as the speakers spoke and the demonstrators demonstrated at the two national political conventions. You will help to determine the results of the politicial campaigning when you cast your votes in November. Because you have a share of responsibility for the status of our country for the next four years, you must be sure of choosing wisely. You cannot make a good decision without thinking and studying seriously. Give the job your best efforts.

Our Legislative Committee is doing much of the ground work for you. Please read and study the materials that are sent to you, and when you vote, make use of the knowledge that you have gained. Encourage your husband to study the legislative materials that come to him from the State Medical Society, and do your best to see to it that he takes an active part, with you, in both the campaign and the election.

Above all, be sure that all of the qualified members of your family register (if registration is necessary in your locality) and cast their votes. Whenever such assistance is essential, help others to get to the polls. A free country is healthy and strong. Since we believe that the people should rule in this country, let's do our best to get as many as possible to exercise their privileges.

Because good government always begins at the grass roots, we must apply the same serious thought and study to local and state elections as to the federal one. Our country is made strong by the pooling of knowledge and ability. After checking with your county medical society, make plans to support and aid others in supporting candidates who will provide us good government. A wisely run government and a sound economy, we should remember, are as important for the medical profession as is a fine health program. Study the reports of the "Little Hoover Commission," contact your legislators to see whether its recommendations are being carried out, and support those of its new recommendations that are acceptable to our medical societies.

You will be hearing from committee chairmen by mail and through our WOMAN'S AUXILIARY NEWS. Read all communications carefully, and whenever you can, plan to aid in their projects. Please show them the courtesy of replying promptly to the letters that they write you. The committee chairmen, quite like you, are busy doctors' wives.

We cannot do everything at once, but we can do something at once.

I hope that those of you who are board members will save Tuesday, October 23, for attending the Fall Board Meeting, and plan to bring with you a member-at-large from a nearby unorganized county.

Do you have empty spots in your year's program? Have you remembered to include the following projects:

1. Legislative studies and plans for getting out the vote
2. Participation in our first mental health program
3. Methods by which you could add to our loan fund

(All money is now out on loan, and we need more with which to fill requests during next year. The recipient might be a girl from your own community!)

4. Organizing a Future Nurses Club or continuing to support those already established
5. Safety and Civil Defense for your family and for yourself

You will soon have your new YEARBOOK. Write

to your committee chairmen for ideas, help and materials for your projects and programs. They plan not to bombard you with mail you do not wish. Because time and preparation are costly, please make full use of the materials available in your own community.

Does the year promise to be *too* busy? You are stronger than you think!

Mrs. Dean H. King, *President*

NURSE RECRUITMENT AND LOAN FUND COMMITTEE

It was possible for us to grant loans to enable four girls to enter nurses' training this year. Thus, there are a total of 20 girls whom we have assisted through our loan fund. Six of them have completed their training and have repaid their loans. Fourteen are still in training.

We have a total of $5,512.95 out on loan, leaving us a bank balance, at present, of only $567.58. For the first time since our loan fund was established, we have had to refuse an application for a loan. In fact there have been three girls this year to whom we did not make loans because the committee felt that further commitments would overburden the Auxiliary.

The Nurse Recruitment and Loan Fund Committee has three suggestions to make to each county Auxiliary for raising additional money for the Fund: (1) see to it that the 50 cent assessment for each member is paid into the Fund; (2) advertise the cards that all county Auxiliary treasurers have for notifying bereaved families that a donation in memory of the deceased has been sent to the Fund (many people prefer such memorial donations, rather than flowers); and (3) plan special money-making projects for the benefit of the Fund.

Plans are under way for holding a Future Nurses' Day on November 2, at Drake University in Des Moines. Each county president, nurse-recruitment chairman and Future Nurses' Club will receive a detailed bulletin just as soon as arrangements have been completed. If your county doesn't as yet have a Future Nurses' Club, why not request information now from Mrs. Hazel Lammey, Iowa State Medical Society, Des Moines?



You can still get your club started quite early in the current school year!

Mrs. N. W. Irving, Jr., *Chairman*

MENTAL HEALTH

The Subcommittee on Mental Health of the Iowa State Medical Society has requested the Woman's Auxiliary to sponsor a pilot program in mental health, using the "Milestones for Marriage" series of letters published by the Louisiana Mental Health Association. In the series there are nine letters written especially for high school seniors to study, and they are geared to the seniors' problems and thinking. Students who have read these letters have shown extreme interest in them and are most enthusiastic about them.

This project was approved at the Auxiliary's July Board Meeting. It is planned to place this series in the hands of teachers and members of ministeral associations throughout the state, for them to use in the counseling that they do. Any suggestions that Auxiliary members can offer regarding the use of these materials in their own communities will be welcomed.

Mrs. Robert Flanders, president of the Woman's Auxiliary to the AMA, says, "Mental illness is the nation's number-one health problem." If we are to place emphasis on mental health this year, all county Auxiliaries should have mental health chairmen.

Anyone desiring information on this project is asked to write to Mrs. Lonnie A. Coffin, State Mental Health Chairman, Farmington.

THE HOOVER COMMISSION

The general aim of the Hoover Commission reports, to promote efficiency in the federal government, is known to most of us. But the part we might play in securing the enactment of changes that the Hoover Commission has suggested isn't clear to us until our attention is called to it.

It is estimated that the adoption of all the recommendations that the Hoover Commission has made would result in a saving of about five billion dollars a year. Although the Congress has facilitated 75 per cent of the changes recommended in the Commission's first report, the changes haven't actually been put into effect. An informed public is needed to see to it that the reforms are actually accomplished.

Use the Hoover Commission program "A Magnificent Gift to the Nation" for your club programs. It contains important information, it is completely non-partisan in nature, and it is interesting to hear. Copies can be secured from Mrs. Kay Metz, Public Relations Department, Quaker Oats Company, Merchandise Mart Plaza, Chicago 14.

Mrs. Wm. B. Chase, Jr.
Legislative Chairman

COUNTY AUXILIARIES

CLAY

The "Handicapped Crafts Sale" at the Clay County Fair was a huge success this year, just as it had been the year before. Some changes were made in the booth, but the scheme under which various county Auxiliaries took turns in managing it remained substantially the same. Ladies from the following Auxiliaries participated: Clay, Sioux, Osceola, O'Brien, Emmet, Dickinson, Lyon, Palo Alto, Pochantas and Buena Vista.

MARSHALL

The physicians of Marshall County and their wives attended a meeting of the Sixth Councilor District of the Iowa State Medical Society on July 24. The candidates for the state legislature and their wives had been invited to a social hour and dinner at the Hotel Tallcorn, in Marshalltown. Following the dinner, Dr. Fred Sternagel, of West Des Moines, president-elect of ISMS, gave an informative talk on the physician-hospital controversy. The matter was informally discussed afterward, and all present felt that they had been given a much better understanding of the issue involved.

We should like to have your county news for the next issue of the WOMAN'S AUXILIARY NEWS. Please be sure that your items reach us by the fourth day of each month. Keep your county in the NEWS!

RECIPE FOR A HAPPY DAY

Guaranteed to help most folks find pleasure in life despite clammy cold, high taxes, threats of war and approaching old age!

1 cup friendly words
2 heaping cups understanding
4 heaping teaspoons time and patience
1 pinch warm hospitality
1 dash humor

Measure words carefully. Add understanding. Use generous amounts of time and patience. Cook with gas on front burner. Keep temperature low; do not boil. Add dash of humor and pinch of warm hospitality. Season with spice of life. Serve in individual molds.

CIVIL DEFENSE BEGINS AT HOME

Remember Grandma's pantry, with its shelves loaded with food? Grandma's pantry was ready for any emergency!

In case of disaster—a flood, a tornado or an enemy attack—your home might be isolated, or food shipments to your community might be disrupted. What would happen to your home if the public utilities were cut off? Could your family keep warm? Could you prepare meals?

With a well-stocked pantry, you could be just as self-sufficient as Grandma. A minimum of three days' food and water—or, preferably, canned juice —is recommended. A week's supply is better. Here are some suggested items:

canned juices
milk (instant dry, evaporated or condensed)
canned meats
canned soups
canned fruits
canned vegetables
flour
dry yeast
sugar
salt and pepper
soap
beverages
safety matches
candles
silverware
olive oil
baby foods
shortening
honey
cereals

Add a first-aid kit, a flashlight, a portable battery-powered radio and some canned heat or fuel for a basement fireplace grille, and your family will be assured of protection against some of the extremes of discomfort.

Civil Defense authorities urge every one of us to look out for himself and his family in case of emergency. Let's have every doctor's home in Iowa ready in case of disaster. Our neighbors will look to us to show them the way. Let's be prepared.

MRS. R. F. NIELSEN

BE A GOOD NEIGHBOR

"A good neighbor will share with you anything he has except the latest gossip."—D. Ahern, in the Decorah PUBLIC OPINION

CORRECTION

The editors regret that one of the "Delegates' Impressions" of the 1956 AMA Auxiliary Convention in the August WOMAN'S AUXILIARY NEWS was mistakenly attributed. The author was Mrs. M. O. Larson, of Hawarden, rather than Mrs. E. A. Larsen, of Centerville.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. Dean H. King, 301 E. 4th Street, Spencer
President-Elect—Mrs. J. F. Gerken, Waterloo
Secretary—Mrs. Robert P. Mason, 5818 Chamberlain Drive, Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663—34th Street, Des Moines 12

A RESEARCH MILESTONE

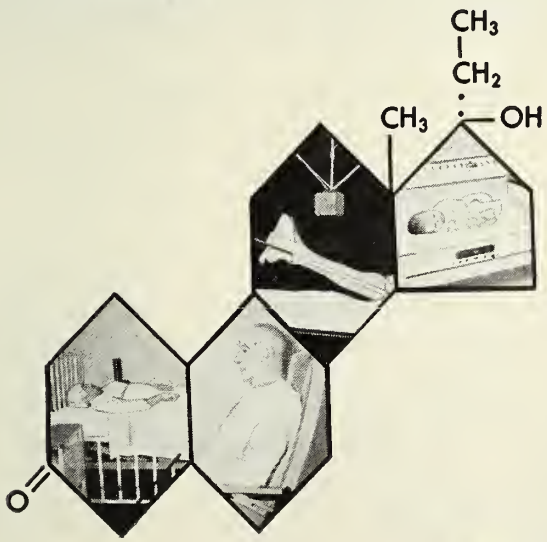
Nilevar*

(BRAND OF NORETHANDROLONE)

Searle's New and Practical Steroid Specifically for Protein Anabolism—

It has long been recognized that a substance which would promote protein anabolism would be of inestimable value in therapy. The androgens have this property, but unfortunately they also exert actions on secondary sex characteristics. These effects are commonly undesirable in therapeutic programs.

THE FIRST STEROID WITH ANABOLIC SPECIFICITY—Nilevar, the newest Searle Research development, therefore, meets a long desired clinical need because Nilevar presents the first steroid primarily anabolic for protein synthesis. Moreover, Nilevar is without prominent androgenic effects (only about one-sixteenth of that exerted by the androgens).



OBJECTIVE AND SUBJECTIVE RESPONSE — Orally effective, Nilevar therapy is characterized by retention of nitrogen, potassium, phosphorus and other electrolytes in ratios indicative of protein anabolism. Moreover, subjectively the patient observes an increase in appetite and sense of well-being.

WELL TOLERATED—Nilevar has an extremely low toxicity. Laboratory animals fail to show toxic effects after six months of continuous administration of high dosages. Nilevar should not be administered to patients with prostatic carcinoma. Nausea or edema may be encountered infrequently. Slight androgenicity may be evidenced on high dosage or in particularly responsive individuals.

MAJOR INDICATIONS—Preparation for and recovery from surgery; supportive treatment of serious illnesses (pneumonia, poliomyelitis, carcinomatosis, tuberculosis); recovery from severe trauma and burns; decubitus ulcers; care of premature infants.

DOSAGE—The daily *adult* dose is three to five Nilevar tablets (30 to 50 mg.) but up to 100 mg. may be administered. For *children* the average daily dose is 1 to 1.5 mg. per kilogram of body weight; individual dosages depend on need and response to therapy.

SUPPLY—Nilevar is available in uncoated, unscored tablets of 10 mg. G. D. Searle & Co., Research in the Service of Medicine.

*Trademark of G. D. Searle & Co.

SEARLE



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We cordially invite your inquiry
for application for membership
which affords protection against
loss of income from accident and
sickness as well as benefits for
hospital expenses for you and
all your dependents.

ALL PREMIUMS COME FROM
PHYSICIANS SURGEONS' DENTISTS
ALL BENEFITS GO TO

$4,500,000 ASSETS
$23,800,000 PAID FOR BENEFITS SINCE ORGANIZATION

Since 1902

PHYSICIANS CASUALTY AND HEALTH ASSOCIATIONS
OMAHA 2, NEBRASKA

The Month in Washington

Washington, D. C.—Regardless of which party organizes the next Congress or who occupies the White House, health and welfare legislation promises to take up considerable time and attention of lawmakers. There is nothing to indicate that the general subject of health has lost its appeal either to the public in general or to men who run for political office in particular.

The national platforms on which the candidates of both parties have been campaigning are somewhat of a blueprint for the type of legislation to come in the 85th Congress, convening next January 3; generally, both parties advocate more rather than less federal participation in health and welfare programs. Here are some of the points in the two platforms:

Aid to Medical Schools—The Republicans recommend "federal assistance to help build facilities to train more physicians and scientists" as a supplement to action of the 84th Congress authorizing federal grants to schools and other groups for laboratory research facilities. The Democrats state: "We pledge ourselves to initiate programs of federal financial aid, without federal controls, for medical education."

Aid to Hospital Construction—The Republican plank: "Republican leadership has enlarged federal assistance for construction of hospitals." The Democratic plank: "We pledge continuing and increased support for hospital construction programs."

Medical Research—Republicans: "We have asked the largest increase in research funds ever sought in one year to intensify attacks on cancer, mental illness, heart diseases and other dread diseases." Democrats: "We shall continue to support vigorously all efforts, both public and private, to wage relentless war on diseases. . . . We commend the Democratic party for its leadership in obtaining greater Congressional authorizations in this field."

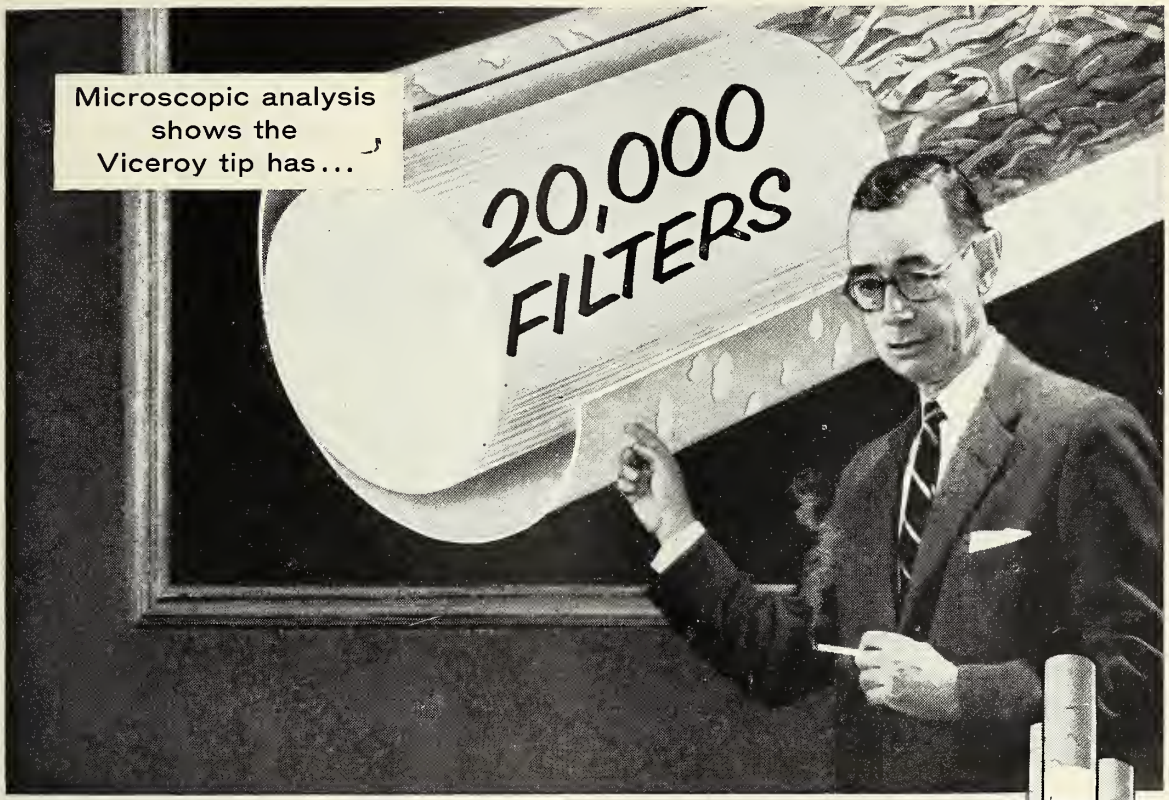
Vocational Rehabilitation—Republicans: "We have fully resolved to continue our steady gains in man's unending struggle against disease and disability." Democrats: "We pledge support to a vastly expanded rehabilitation program for these physically handicapped, including increased aid to states."

Medical Care—Republicans: "We have encouraged a notable expansion and improvement of voluntary health insurance, and urge that reinsurance and pooling arrangements be authorized to speed this progress." Democrats: "We pledge . . . increased federal aid to public health services, particularly in rural areas."

Social Security—Republicans: "We shall con-

HERE'S WHY SO MANY DOCTORS NOW SMOKE AND RECOMMEND

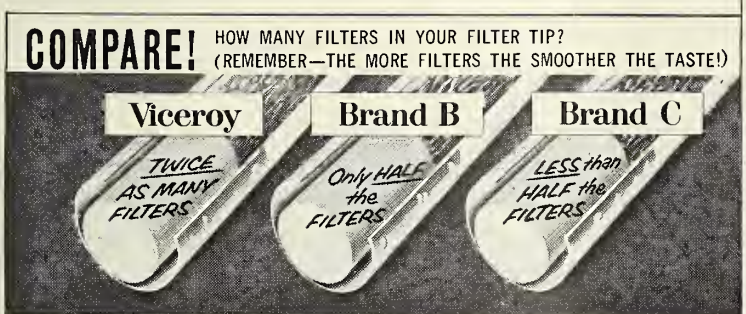
VICEROY



Twice as Many Filters

AS THE OTHER TWO LARGEST-SELLING FILTER BRANDS

For the Smoothest Taste in Smoking!



VICEROY'S EXCLUSIVE FILTER IS MADE FROM PURE CELLULOSE—SOFT, SNOW-WHITE, NATURAL!



tinue to seek extension and perfection of a sound social security system." Democrats: "By lowering the retirement age for women and for disabled persons, the Democratic 84th Congress pioneered two great advances in social security. . . . We shall continue our efforts to broaden and strengthen this program by increasing benefits to keep pace with improving standards of living, by raising the wage base upon which benefits depend and by increasing benefits for each year of covered employment."

NOTES

Further evidence that federal aid to medical schools will be high on the agenda of the next Congress is the survey underway by the staff of the House Interstate and Foreign Commerce Committee. More than 50 organizations have been sent letters requesting background facts on financial needs of medical schools and the demand for medical school applicants "rather than arguments intended to support or oppose any particular form of federal aid." The information is being gathered as a preliminary to hearings in the next Congress.

Public Health Service announced the availability of 250 traineeship grants for graduate or specialized training of professional public health personnel under the newly enacted Health Amendments (Omnibus) Act. Emphasis is on bringing new and younger people into public health, men and women under 35 years of age. Congress voted $1,000,000 for the program this year. Another 500 traineeships from a $2,000,000 appropriation are offered for graduate nurses in administrative, supervisory and teaching positions.

While Defense Department officials were putting the finishing touches on regulations to carry out the military dependents' medical care program, the State Department was working on its own version of a program for furnishing care to about 13,500 dependents of Foreign Service personnel stationed overseas. In most instances, medical and hospital care (with a $35 deductible clause) will be supplied in U. S. military installations.

To aid the Defense Department in setting up fee schedules for military dependents using private physicians and facilities, state medical societies in cooperation with the American Medical Association have been asked to supply data on prevailing medical care charges.

New chief of the PHS Communicable Disease Center at Atlanta, Ga., is Dr. Robert J. Anderson, a career PHS officer who has been serving as assistant chief of the division of special health services.

Plan to attend the Annual Meeting of the Iowa State Medical Society, April 28-May 1, 1957, in Des Moines.

HILLCREST HOSPITAL

Operated by The Retreat Company

Des Moines 12, Iowa

Established 1905 **Cottage Plan**

A hospital for the study, care and treatment of mental, emotional, personality and habit disorders

Facilities available for Acute Psychiatric Conditions Geriatrics and Alcoholism

HERBERT C. MERILLAT, M.D., Medical Director
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Coming Meetings

(Continued from page 556)

Nov. 5-16	**Gastroscopy & Gastroenterology.** Cook County Grad. School of Medicine, Chicago
Nov. 5-16	**Laryngology & Laryngeal Surgery.** Temple University, Philadelphia
Nov. 5-17	**Bronchoesophagology.** Univ. of Illinois College of Medicine, Chicago
Nov. 5-17	**Endaural Surgery.** New York University, NYC
Nov. 5-Dec. 1	**Neurology,** Montefiore Hospital, NYC
Nov. 7-9	**Fifth Annual Clinical Meeting, American Academy of Obstet. & Gynec.**
Nov. 8-9	**Radiology.** Tulane University, New Orleans
Nov. 8-10	**5th Western Cardiology Conference.** Univ. of Colorado and Colorado Heart Assn., Denver
Nov. 12	**Cardiac Arrest and Resuscitation.** New York University, NYC
Nov. 12-13	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Nov. 12-13	**Office Proctology.** Mt. Sinai Hospital, NYC
Nov. 12-14	**Internal Medicine.** Kansas Univ. Med. Center, Kansas City, Kans.
Nov. 12-14	**Assn. of Military Surgeons.** Statler Hotel, Washington, D. C.
Nov. 12-14	**Problems of Clinical Medicine.** New York University, NYC
Nov. 12-14	**X-ray and EKG in Heart Disease in Infants & Children.** Cook County Graduate School of Medicine, Chicago
Nov. 12-14	**Recent Advances in Management of Cancer.** City of Hope, Duarte, California.
Nov. 12-15	**Internal Medicine.** Univ. of Kansas Med. Center, Kansas City, Kans.
Nov. 12-15	**Southern Medical Association,** Washington, D. C.
Nov. 12-15	**Pediatric Endocrinology & Related Metabolism.** New York Univ., NYC
Nov. 12-16	**Los Angeles Urologic Research Convention.** Ambassador Hotel, Los Angeles
Nov. 12-16	**Ann. Meeting, Am. Public Health Assn.** Convention Hall, Atlantic City
Nov. 12-16	**Postgraduate Short Course, Am. College of Chest Physicians.** Park-Sheraton Hotel, NYC
Nov. 12-16	**Electrocardiography.** New York University, NYC
Nov. 12-16	**Hematology.** New York University, NYC
Nov. 12-16	**Arthritis & Allied Rheumatic Diseases.** New York University, NYC
Nov. 12-17	**Investigation of Homicide.** Univ. of Cincinnati, Institute of Industrial Health, Cincinnati
Nov. 14-15	**Industrial Medicine.** University of Buffalo, Buffalo
Nov. 14-22	**Pan-Pacific Surgical Association.** Honolulu
Nov. 15-16	**Blood Bank Management.** Bunts Institute, Cleveland
Nov. 15-17	**Angiography and Catheterization, and Diagnosis of Malformations of Heart in Infants and Children.** Cook County Grad. School of Medicine, Chicago
Nov. 15-17	**Recent Advances in Surgery and Surgical Specialties.** Albany Medical College, Albany
Nov. 16-17	**Vascular Diseases.** Tufts College, Boston
Nov. 19-21	**Fractures for GP's.** Univ. of Minn. Center for Continuation Study, Minneapolis
Nov. 19-21	**Glaucoma, With Special Emphasis on Technics and Gonioscopy.** Brooklyn Eye & Ear Hospital, Brooklyn
Nov. 21-26	**Electrocardiography.** U.C.L.A., Los Angeles
Nov. 23-24	**Dermatology.** Tufts College, Boston
Nov. 25	**Southwest Ohio Society of GP's.** Univ. of Cincinnati, Cincinnati
Nov. 26-30	**Surgery of Colon & Rectum.** Cook County Grad. School of Medicine, Chicago
Nov. 26-30	**Selected Problems in Internal Medicine, Am. College of Physicians.** Univ. of Oklahoma, Oklahoma City
Nov. 26-30	**Management of Mass Casualties.** Brooke Army Medical Center, San Antonio
Nov. 26-30	**Peripheral Vascular Disease.** New York University, NYC

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PERSONALS

Dr. Walter D. Abbott, a Des Moines neurosurgeon and one of the trustees of the Iowa State Medical Society, addressed the midsummer conference of the Rocky Mountain Radiological Society, in Denver on August 16, on the Iowa hospital-physician controversy, and on "Angiography in the Diagnosis of Vascular and Neoplastic Disease."

On August 16, **Dr. and Mrs. C. A. Trueblood** and their three children returned to Indianola from a two-months tour of Europe.

Dr. Norman B. Nelson, dean of the College of Medicine at SUI and one of several American educators whom the State Department has asked to advise the faculties of foreign medical schools, left Iowa City on August 19 for Quito, Ecuador, to help revise the curriculum and improve the administration of the medical college there.

Mr. S. R. Christensen, a public health sanitarian, was appointed on August 17 to take charge of the Des Moines Polk County Health Department until a successor can be found for **Dr. Abraham Gelperin,** who recently resigned the directorship.

Excavation was begun on August 16 preparatory to the construction of a new office building in Vinton for **Dr. G. R. Woodhouse,** a physician, and his son, a dentist. The 32′ x 50′ structure is to be ready for occupancy by the first of next year.

On August 20, **Dr. Max E. Olsen** resumed full-time practice at Minden. Early in his recently completed two-year tour of duty with the Navy, he was stationed in Japan, but for the last six or eight months he was at the induction center in Kansas City. Throughout the latter period, Dr. Olsen has commuted weekends so as to keep Saturday office hours in Minden and supervise the management of two farms in the Minden area, on one of which it is said that he now has 80 head of Hereford cattle.

Dr. George B. Hogenson returned home to Eagle Grove on terminal leave from the Navy late in

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General Surgery, One Week, October 29
General Surgery, Two Weeks, November 5
Breast & Thyroid Surgery, One Week, October 22
Gallbladder Surgery, 3 days, October 29
Fractures & Traumatic Surgery, Two Weeks, October 15

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, October 22
Vaginal Approach to Pelvic Surgery, One Week, October 15
General and Surgical Obstetrics, Two Weeks, November 5

MEDICINE—Electrocardiography & Heart Disease, Two-Week Basic Course, October 8
Gastroenterology, Two Weeks, October 22
Dermatology, Two Weeks, October 15
Cardiology (Pediatric), Two Weeks, November 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, November 26
Clinical Uses of Radioisotopes, Two Weeks, October 8

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August, and was separated from the service in Chicago on September 12.

On August 16, a medical grip containing instruments valued at $600 was stolen from **Dr. F. X. Tamisiea**'s automobile. Though it was probably narcotics that the thief sought, the valise contained none. The doctor had left the car at the rear of his office building in Missouri Valley while he stepped inside for just a few moments.

Dr. James G. Carter, a graduate of the College of Medicine at SUI who recently completed a residency in anesthesiology there, has begun the practice of his specialty in Mason City.

Dr. John F. Foss bought the Moffat Fink house on Prospect Hill, in Burlington, at an auction on August 20. The property, which is said to be one on the finest in the city, was sold to the highest bidder in the district court room, in compliance with the terms of the Fink will.

Gifts totaling more than $54,000 were accepted recently by the Board of Regents on behalf of the SUI College of Medicine. They included $16,050 from the American Cancer Society; $16,000 from the National Science Research Foundation; $15,000 from the Auxiliary to the Veterans of Foreign Wars; $3,800 from the American Chemical Society; and $2,850 from the Iowa chapter of the Arthritis and Rheumatism Foundation.

At two in the afternoon on September 5, when **Dr. Eugene F. Ritter** was on his way from Centerville to Seymour to visit a patient, a slick place on the rain-wet blacktop caused him to lose control of his Thunderbird, and it overturned in the ditch. A truck that was following him also went out of control, but did not leave the pavement. When Dr. Ritter realized that his car was certain the leave the road and that there was nothing that he could do to prevent its doing so, he lay down on the seat, thus saving himself from injury when the car overturned. Virtually unhurt, though there were damages to the car that will cost $1,500 to repair, he crawled from the wreck, hitch-hiked a ride to Seymour and attended his patient.

He says he is glad he had no safety belt, for a belt would have prevented him from lying down.

Dr. Adolph Sahs, head of the Department of Neurology at SUI, addressed the Linn County Medical Society September 13 on "The Neurologic Examination."

In Des Moines on September 8, **Dr. Raymond R. Rembolt,** director of the Hospital School for Severely Handicapped Children, at Iowa City, was



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elected president of the Iowa Society for Crippled Children and Adults.

Dr. P. E. Huston, head of the Department of Psychiatry and director of the State Psychopathic Hospital, and **Dr. Carroll B. Larson,** head of the Department of Orthopedic Surgery at SUI, will be among the speakers at the Fall Institute of the University's College of Law on October 5 and 6. The program is intended as a refresher course for lawyers.

Dr. Huston will speak on factors determining the competence of a testator, and Dr. Larson will be a member of a panel that will discuss the examination of expert medical witnesses in accidental injury cases.

In September, **Dr. Joseph M. Rooney,** a 1955 graduate of the Creighton University Medical School, opened a practice in Algona.

Dr. Rufus D. Kruse, a 1945 graduate of the College of Medicine at SUI who practiced with **Dr. R. T. Spain** at Conrad before serving in the Navy and taking training in internal medicine at Iowa City, joined **Drs. Ralph** and **Earl Keyser** and **B. L. Trey** in practice at Marshalltown early in September.

Dr. Henry E. Hamilton, of the Department of Internal Medicine at SUI, read a paper on pernicious anemia at the Sixth Congress of the International Society of Hematology, in Boston on September 1. In the research work that he reported, **Dr. Raymond F. Sheets** and **Dr. Elmer L. de Gowin,** of SUI, had participated with him.

The Margaret and Howard Hall Radiation Center, adjacent to Mercy Hospital in Cedar Rapids, was ready for opening early in September. The building houses a cobalt bomb unit.

Dr. Sidney Brody, city physician, and **Dr. George W. Smiley,** superintendent of Sunnyslope Sanatorium, were named chairman and vice-chairman of the newly established nine-member Ottumwa Advisory Health Committee. The group will meet regularly with health department officers to appraise operating procedures, evaluate policies and advise improvements in program.

Dr. Charles L. Seaman, of Cherokee, broke several ribs and punctured one of his lungs in a fall at his home on August 26. On the next day, he was moved by plane to a hospital in Omaha.

Dr. C. M. Wray, of Iowa Falls, a Life Member

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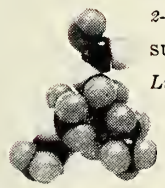
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of the Iowa State Medical Society, was one of the contestants in the Iowa Seniors' Golf Tournament at Fort Dodge on August 30. He will be 80 years of age within the next few weeks.

After having been hospitalized for a month, **Dr. E. T. Scales**, a Des Moines general practitioner, has been convalescing at home.

Dr. M. D. Hayden, of Marcus, escaped injury Labor Day afternoon when, on his way to visit a patient, he lost control of his car in making an abrupt turn immediately after passing the top of a hill on a gravel road. His car overturned and was extensively damaged.

The Iowa Governmental Reorganization ("Little Hoover") Committee announced on August 28 that its plan for revising the composition of the State Board of Health has the approval of the state health commissioner, **Dr. E. G. Zimmerer.**

Under the proposed scheme, the Board would consist of eight members appointed by the governor, in addition to the health commissioner, instead of being made up of five physicians and the members of the state executive council. It would be required to meet at least six times a year, rather than twice.

It was announced on July 29 that the Iowa Heart Association will give $13,000 to the SUI College of Medicine, principally for the expansion of diagnostic services to potential heart-surgery patients at University Hospitals. More than half of the sum is the second installment of the $15,000 that the Association had pledged toward the support of the Cardiovascular Laboratory. **Stephen M. Horvath, Ph.D.,** is to have $2,500 to finance the continuation of his basic studies in heart disease. **Dr. J. W. Culbertson,** director of the Laboratory, says that Dr. Horvath's grant is of a new type, in that the donor has not required that the investigations have a specific objective, and has set no deadline for their completion. The remainder of the gift is to be used for the purchase of diagnostic equipment for the Laboratory, Dr. Culbertson has stated.

Dr. Clifford P. Gopelrud, a 1948 graduate of the College of Medicine at SUI and a specialist in obstetrics and gynecology, has begun practice in Iowa City. Following his internship in Cincinnati and his residency in Atlanta, he served three years with the Army near Albuquerque. He was discharged from the service on June 29.

Dr. L. D. Carroway, a 1955 graduate of the College of Medicine at SUI who interned at the county hospital in Fresno, California, has joined his brother-in-law, **Dr. Robert Myers,** in practice at Monticello.

Dr. Robert J. Neufeld, of the West Davenport Clinic, suffered a fracture of the foot, a fracture of the arm and miscellaneous bruises in a fall from a horse while he was on vacation near Colorado Springs July 25. After receiving treatment from a physician there, he was flown back to Davenport for further attention.

During August, **Dr. F. B. O'Leary,** of Sibley, was a patient for a week or ten days at St. Joseph's Hospital, in Sioux City. He had an abdominal ailment. Another Sibley physician, **Dr. Frank Rizzo,** broke his arm when his heel caught on a stair tread and he fell at his brother's home in Oelwein on August 19.

While in London last summer, **Dr. Lee Forrest Hill,** Des Moines pediatrician, was guest of honor at a dinner held at the Lord Mayor's residence in connection with the Eighth International Congress of Pediatrics. He had had no prior notification that he was to be singled out for recognition.

On September 24, the Wright County Medical Society conducted a medical forum meeting at Clarion.

At the meeting of the Iowa Academy of Ophthalmology and Otolaryngology in Cedar Rapids on September 12, the speakers were **Dr. Peter Kronfeld,** head of the Department of Ophthalmology at the Illinois Eye and Ear clinic in Chicago; **Dr. John Lindsay,** head of the Department of Otolaryngology at the University of Chicago Hospitals; and **Dr. L. J. Halpin,** of Cedar Rapids.

The doctors, dentists and pharmacists of Delaware County held a picnic on September 13, at Manchester.

Dr. Wayne Severson has returned to Slater after completing his military duty. He has been stationed at Pittsburgh.

Dr. Wallace Rindskopf, of Des Moines, is temporary treasurer of a fund for research and education at Broadlawns Hospital that has been established by the Polk County Medical Society in memory of the late **Mr. Thomas P. Sharpnack,** for many years the administrator there. It is possible that someone else may take over the treasurership when the fund has been legally incorporated.

Dr. Joyce Perrin, who formerly practiced in Des Moines and who is now practicing in Long Beach, California, was married in Las Vegas, Nevada, on August 4 to **Mr. Harry Lee McCumber, Jr.**

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Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.: J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.: Brit. M. J. 2:755, 1953.

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Brown, H. W.: J. Pediat. 45:419, 1954.

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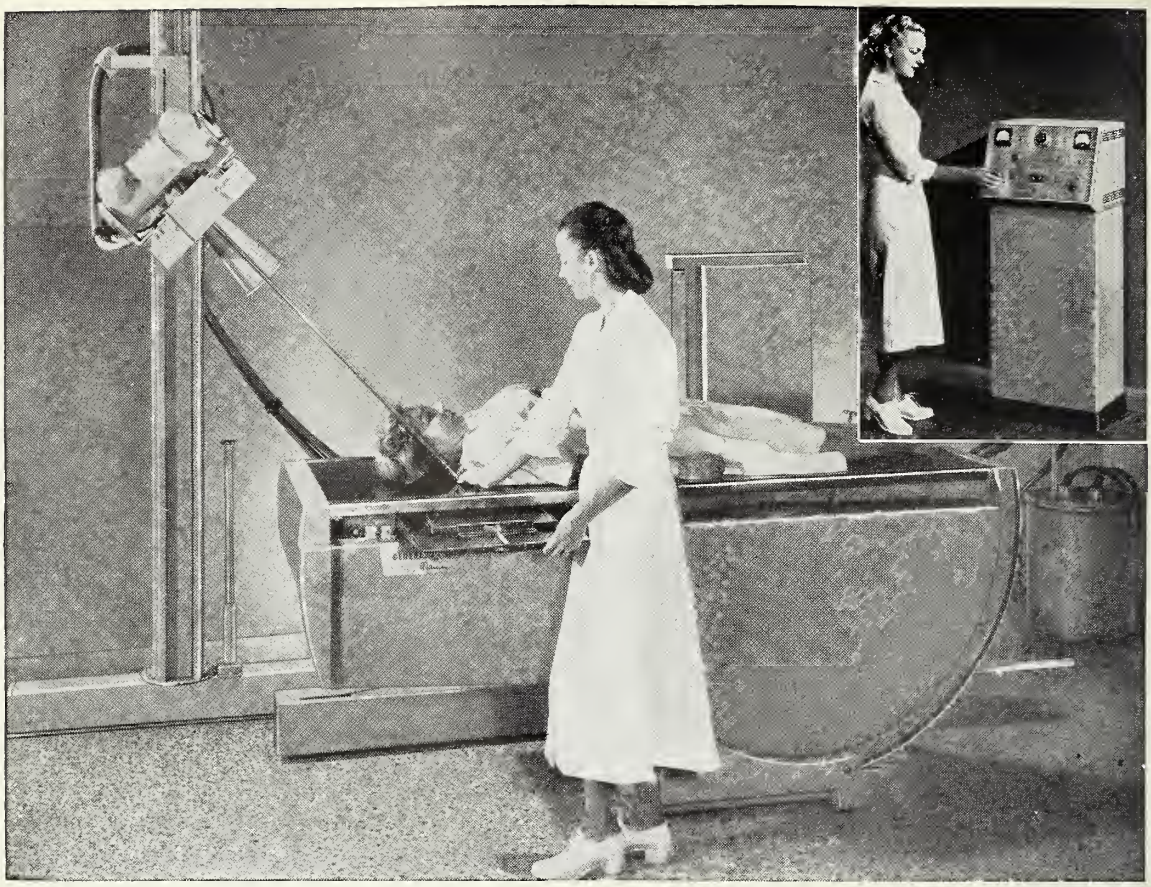
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At the recent state officers' conference of the American Academy of General Practice, held in Kansas City at the time that the Academy's new office building was dedicated, **Dr. Donald Kast**, of Des Moines, secretary of the Iowa chapter, spoke on "The Duties of a State Chapter Secretary."

Dr. Ralph Heeren, director of the divisions of venereal disease control and communicable diseases, and deputy commissioner of the State Health Department, has been elected to membership in the Royal Society of Health. He is the second Iowan whom the British organization has thus honored. **Dr. Walter L. Bierring**, former commissioner and now director of the Division of Heart and Chronic Diseases in the State Health Department, was elected to membership a year ago.

According to Health Department records, there were 60 cases of poliomyelitis reported in Polk County through August 31 of 1956, compared with 81 cases during the first eight months of 1955. Thirty-nine of this year's cases were in patients under the age of 20, and of them, there were 3 who had received three shots of Salk vaccine. The others of the under-20 group had received either one or two shots. There were no paralytic cases.

Since its establishment in 1949, the Henry M. Wilson Student Loan and Scholarship Fund at Broadlawns Polk County Hospital has made 101 loans to 84 nursing students, in sums ranging from $50 to $650. At present there are 37 loans outstanding, for $15,776. The Polk County Medical Society is one of the sponsors of the Henry M. Wilson Fund.

At the September 20 meeting of the Woodbury County Medical Society, held in the Martin Hotel at Sioux City, **Dr. Anthony Curreri**, professor of surgery at the University of Wisconsin and director of the cancer research center there, gave a paper on the role of chemotherapy in the treatment of solid malignancies.

At the October 2 meeting of the Wapello County Medical Society, in the Ottumwa Hospital, **Dr. V. J. Vaughn**, of Ottumwa, will speak on "Hypnosia as an Aid in Clinical Anesthesia." At the meeting held on September 4, **Dr. Robert L. Jackson**, formerly a professor of pediatrics at SUI and

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

March 5, 6, 7 and 8, 1957

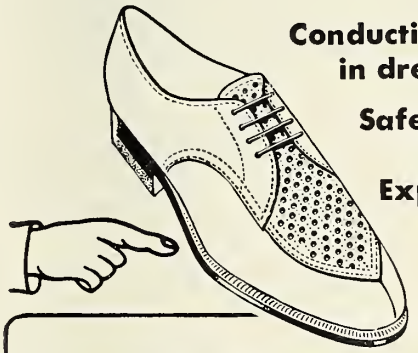
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now at the University of Missouri, spoke on "Nutritional Management of Infants and Children."

At the October 16 meeting of the Black Hawk County Medical Society, to be held at 6:30 p.m. in the Elks Club at Waterloo, **Dr. Donald L. Sexton**, of St. Louis, will speak on the topic "The Management of Some Complications of Hyperthyroidism."

The speaker at the meeting of the Johnson County Medical Society at 6:00 p.m. on October 3 in the Mayflower Hotel, Iowa City, will be **Dr. Emory D. Warner**, professor and head of the Department of Pathology at SUI. He has chosen the topic "Chronic Thyroiditis."

The candidates for the state legislature from Scott County, and their wives, **Dr. Walter D. Abbott**, a trustee of the State Medical Society, and **Mr. Robert Throckmorton**, of Des Moines, an ISMS attorney, will be dinner guests of the Scott County Medical Society, at 6 p.m. on October 2 at the Outing Club in Davenport.

At a 6:30 dinner meeting of the Woodbury County Medical Society on October 18 in the Mayfair Hotel, Sioux City, **Dr. James W. Culbertson**, director of the Cardiovascular Laboratory at SUI, will discuss the research that he and his associates are conducting.

DEATHS

Dr. Adrian L. Breen, 83, of Farley, died at a Dubuque hospital on July 23.

Dr. Everett D. Plass, 70, head of the Department of Obstetrics and Gynecology at SUI from 1926 until 1951, and a Life Member of the ISMS, died on August 17, at Saranac Lake, New York. His successor at SUI, Dr. John H. Randall, said of him, "Dr. Plass had a very prominent part in the development of University Hospitals and the College of Medicine. . . . He was an excellent teacher and a fine clinician." Burial took place in Iowa City.

Dr. Charles G. Yost, 82, who practiced medicine at Center Point for 55 years, died there on August 29. He retired in 1953 after suffering a stroke.

Dr. Thomas L. Ward, 59, of Arnolds Park, died at his home there, September 10, after a lingering illness. He had practiced in the community for 20 years and was a councilor of the Iowa State Medical Society.

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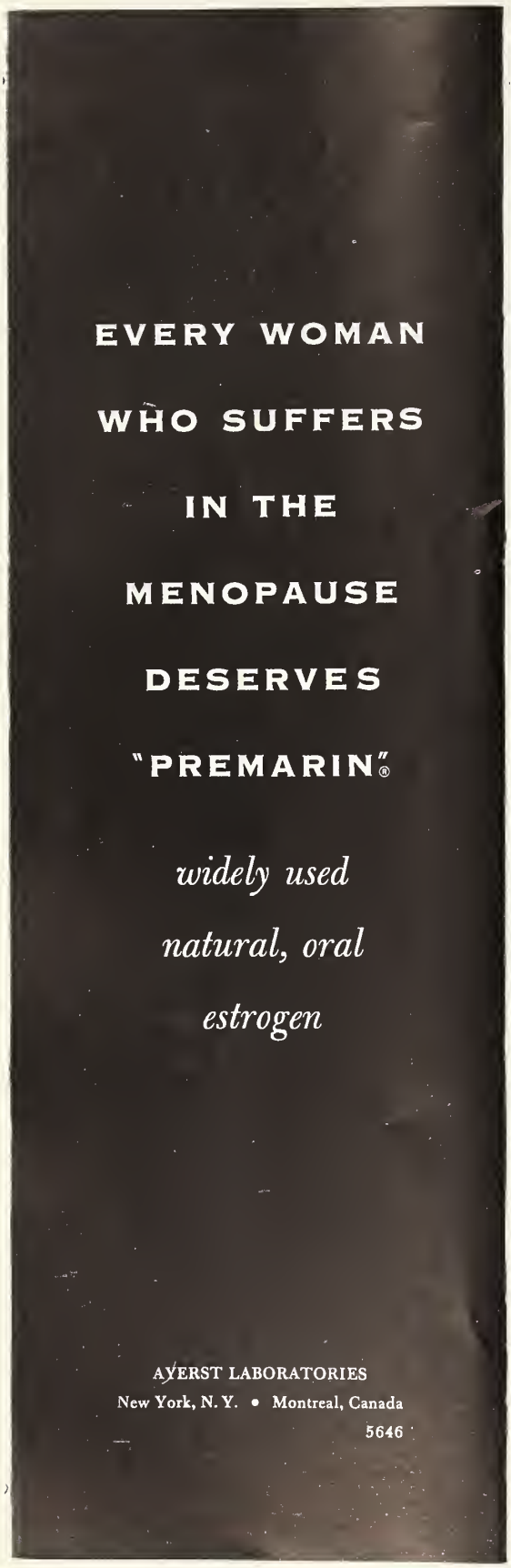


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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 11:15 a.m.
"WELL AT WORK"

October 4 ..... Mental Health and Industry
October 11 ..... Degenerative Disease and Work Adjustment
October 18 ..... Eye Problems in Industry
October 25 ..... Family Health Problems in Relation to Industry

WSUI—Iowa City, Iowa
Mondays at 3:45 p.m.
"SUPERSTITION OR SCIENCE"

October 1 ..... Cancer
October 8 ..... Goiter
October 15 ..... Anesthesia
October 22 ..... Wounds
October 29 ..... Digitalis

TELEVISION

KGLO-TV—Mason City, Iowa
Mondays at 3:30 p.m.

October 1 ..... Worry
October 8 ..... Rehabilitation of Strokes
October 15 ..... Blood Typing
October 22 ..... Menopause
October 29 ..... Gallstones

KTIV-TV—Sioux City, Iowa
Saturdays at 12:00 noon

October 6 ..... Worry
October 13 ..... Rehabilitation of Strokes
October 20 ..... Blood Typing
October 27 ..... Menopause

KQTV—Fort Dodge, Iowa
Mondays at 7:30 p.m.

October 1 ..... Fertility
October 8 ..... Worry
October 15 ..... Rehabilitation of Strokes
October 22 ..... Blood Typing
October 29 ..... Menopause

KCRG-TV—Cedar Rapids, Iowa
Sundays at 12:00 noon

October 7 ..... Abdominal Pain
October 14 ..... Fertility
October 21 ..... Worry
October 28 ..... Rehabilitation of Strokes

KWWL-TV—Waterloo, Iowa
Tuesdays at 11:30 a.m.

October 2 ..... Rehabilitation
October 9 ..Facts and Fallacies About Psychiatry
October 16 ..... Alcoholism
October 23 ..... Antibiotics
October 30 ..... Cancer

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C. Paul Hodgkinson, M.D., Gynecology and Obstetrics
Henry Ford Hospital, Detroit, Michigan
George C. Griffith, M.D., Internal Medicine
University of Southern California School of Medicine
Chester S. Keefer, M.D., Internal Medicine
Boston University School of Medicine
Hugh T. Carmichael, M.D., Neuropsychiatry
University of Illinois College of Medicine
Jack Wickstrom, M.D., Orthopedic Surgery
Tulane University of Louisiana School of Medicine
Merrill J. Reeh, M.D., Ophthalmology
Portland, Oregon
James L. Wilson, M.D., Pediatrics
University of Michigan Medical School
Henry G. Moehring, M.D., Radiology
Duluth Clinic, Duluth, Minnesota
Denton A. Cooley, M.D., Surgery
Baylor University College of Medicine
Thomas B. Quigley, M.D., Surgery
Harvard Medical School

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By solid accomplishments, the World Medical Association has already earned the right to call itself "the international voice of organized medicine." In 1953, it sponsored the First World Conference on Medical Education, in London. A second World Conference on Medical Education is now being planned for 1959, to be held in the United States. WMA assists traveling physicians by providing them with introductions to colleagues in other countries, by making speaking engagements for them abroad, by acquainting them with visiting doctors from other countries, and by sending the WORLD MEDICAL JOURNAL to members of all national supporting committees.

Two other WMA accomplishments that have brought great credit to the profession and strengthened it throughout the world were the promulgation, in 1948, of the Declaration of Geneva, comprising a modern re-statement of the Hippocratic Oath, and the adoption, in 1949, of an International Code of Medical Ethics.

WMA has endeavored to oppose the efforts of the International Social Security Association and the International Labour Organization for state medicine under social security programs. At present, WMA is attempting to wrest from the International Labour Organization the recognized world leadership in the field of occupational medicine. As regards the attempt by the World Health Organization to draft an international code of medical law, WMA has insisted that such a code be based upon ethical principles acceptable to the profession.

For all of these activities, and for many more which demand attention, WMA needs additional funds. Each physician who joins the U. S. Committee—there are at present 5,000 physician members in this country, only 3 per cent of the profession—not only adds to the funds at the disposal of the organization but adds his name and his influence to program of the WMA and its U. S. Committee. Annual membership dues are $10, and whatever additional contributions American doctors may wish to make are deductible from their taxable incomes.

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FALL SCIENTIFIC MEETING

Room E405 University Hospitals, Iowa City
October 12-13, 1956

Friday

1:30 p.m. Registration

2:00 p.m. Radiographic Findings in the Collagen Diseases
Richard B. Price, M.D.

2:30 p.m. Ureteral Calculus: Bladder Contraction and Pelvic Phleboliths as Aids in Diagnosis
George Wyatt, M.D., and John Greenleaf, M.D.

3:00 p.m. Experiments in Visualization of the Liver, Spleen and Lymphatic System
Harry W. Fisher, M.D.

3:30 p.m. Treatment of Tumors of the Salivary Glands
Norman A. Gremel, M.D.

4:00 p.m. The Silhouette Sign: An Aid in Localizations of Pulmonary Lesions
Louis L. Maher, M.D.

4:30 p.m. Business Meeting

6:30 p.m. Cocktail Hour, Mayflower Hotel, Courtesy of Picker X-ray of Iowa

7:30 p.m. Dinner, Mayflower Hotel

Saturday

9:00 a.m. Gastric Ulcerations: The Accuracy of Roentgen Diagnosis
W. Wayne Sands, M.D.

9:30 a.m. Dyspnea in Infants and Children
Eugene F. Van Epps, M.D.

10:00 a.m. Diagnostic Panel
Dr. Fischer, moderator
(Each member of the Society is asked to bring one interesting case for presentation.)

11:00 a.m. Lunch, Doctors' Cafeteria, University Hospitals
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(Keesler Field, Mississippi) .....Capt., U.S.A.F.
Berggreen, Raymond G., Mason City
(U.S. Naval Hosp., Memphis, Tenn.) ..Lt., U.S.N.R.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Cloud, A. B., Guthrie Center
(San Antonio, Texas) .....A.U.S.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego, Calif.) .....Lt.(j.g.), U.S.N.R.
Day, R. T., Hampton
(10th Tactical Hospital, USAFE, APO 123, New York City) .....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Elmer, Norman J., Strawberry Point .....U.S.N.
Gleeson, J. J., Vail
(Fargo, North Dakota) .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
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Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Howe, G. W.. Iowa City
(Grosse Isle, Michigan) .....N.A.S.
Johnston, T. L., Iowa City
(Qtrs. 12, Warren AFB, Cheyenne, Wyo.) .....
Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Lake, Carlton B., Sumner
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Larson, Gerald E., Elk Horn
(A.P.O. 856, New York, N. Y.) .....Capt., U.S.A.F.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.
McCoy, John T., Cedar Falls
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1. Rosenberg, S. and Oster, K. A., "Gelatine in the Treatment of Brittle Nails," *Conn. State Med. J.* **19**:171-179, March 1955.
2. Tyson, T. L., *J. Invest. Dermat.* **14**:323, May 1950.

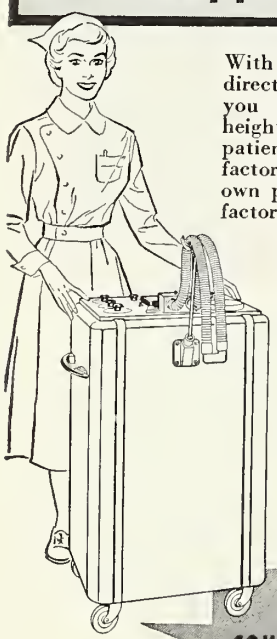
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MISSISSIPPI VALLEY CONFERENCE ON TUBERCULOSIS

The meeting of the Mississippi Valley Conference on Tuberculosis, to be held at the Statler Hotel, Detroit, on October 11-13, will hear papers on current trends in tuberculosis control, tuberculin testing, medical research, medical education, preventive aspects of the tuberculosis program, case finding, pulmonary occupational disease, mediastinal tumors, open-heart surgery and pulmonary surgery. The keynote address will be delivered by Senator Charles E. Potter, of Michigan.

Entertainment will be provided for the physicians and their wives in the evenings of the first and second days.

PRENATAL "STRESS" MAY CAUSE LEUKEMIA

A possible clue to the cause of leukemia is suggested in an article by Drs. Doris H. and Jerome S. Harris, of Durham, North Carolina, in the July, 1956, issue of the AMA JOURNAL OF THE DISEASES OF CHILDREN.

The trouble may result from some prenatal injury to the blood-forming organs, they think. They base their speculation upon their study of Mongoloid children, in whom the incidence of leukemia is higher than in the general population. The actual cause of Monogolism is unknown, but it is generally believed to result from a physical, chemical or infectious stress placed on the developing fetus between the sixth and ninth weeks of life. It is possible that the later development of leukemia in these children results from injuries to the developing bone marrow and blood cell system, or so it seems to the authors. These prenatal influences may be the direct cause, or they may make the children more than normally susceptible to damage from virus or x-ray.

Over a 25-year period, the authors saw four cases of leukemia among 255 Mongoloid children. In addition, nine other cases have been reported.

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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI NOVEMBER, 1956 No. 11

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The Physician's Obligations as a Citizen

JAMES REULING, M.D.

WINDERMERE, FLORIDA

I RECALL READING in a medical publication a couple of years ago that five physicians were among the 56 signers of the DECLARATION OF INDEPENDENCE. Nine per cent of the men who signed that historic document, giving the breath of freedom to a newborn nation, were members of the medical profession. They demonstrated in no uncertain fashion, way back in 1776, that a physician is first a citizen —and that he can be a leader in public affairs if he so chooses.

Those five physicans, it should be emphasized, were not simply expressing a mild, dignified opinion on a public issue. They signed the most controversial written document in the history of mankind. They were full-blooded revolutionaries who chose to live dangerously. They were among the leaders of a major political revolt against duly constituted authority.

If they and their co-leaders had lost their cause, they would have faced much more than public criticism for being on the wrong side of an issue . . . much more than ridicule for being active political visionaries . . . much more than the loss of their medical practices. If their cause had failed, they undoubtedly would have faced the gallows or the firing squad. Nevertheless, they took their chance for leadership, without hesitation.

WE MUST LEAVE OUR IVORY TOWER

It is apparent throughout the document which those five physicians signed that they and their 51 colleagues expected succeeding generations of Americans to take an interest in politics and public affairs. Yet today we find many people, in and out of the medical profession, who believe that the doctor's place is in his office and hospital. They think the physician should stick strictly to his medical knitting. In their view, he invariably dirties his hands and his professional status whenever he engages in political affairs or speaks his mind on controversial public issues. Some of them, apparently, even beleve that he should keep his distance from nonpolitical community activities.

All of this, in my opinion, is contrary not only to the American tradition but also to the traditions of the medical profession. Such a limited view of the physician's place in life makes him a special sort of second class citizen—on an upper level. In effect, it prevents him from exercising all the rights and privileges of citizenship, and it also prevents him from assuming the full duties and responsibilities of citizenship. And nowadays, it seems to me, while we hear a lot about rights, we don't think nearly enough about obligations.

In that connection, there is a pertinent observation in the American Medical Association's Public Relations Manual for County Medical Societies:

"A lot of Americans can expound at great length about the rights and privileges of citizenship, but few are as enthusiastic about the duties and responsibilities of citizenship. The freedoms granted Americans in our Constitution and Bill of Rights carry with them definite obligations. Like other groups, doctors have been lax for the most part in shouldering their citizenship responsibilities. By their withdrawal from the realms of government—whether it be a local school board election or a presidential contest at stake—physicians create new public relations problems for themselves and the medical profession.

"Active interest, continued efforts to keep informed, and vigorous participation in the activities of government are the elements of good citizenship. The road to good citizenship leads not only to good government, but to good public relations as well."

The need for physicians to think about their responsibilities as citizens did not always exist in this country. The feeling that doctors should withdraw into a scientific ivory tower—turning their backs on mundane affairs of a non-medical nature —has grown up mainly in the past three or four decades. Up until the years around the turn of the century, most physicians were active in community affairs—not only those involving medical care and public health, but also those of a broader social and civic nature.

The old-time family doctor—especially in the smaller cities and in rural areas—was respected as both a physician and a member of the community. He was looked upon not just as one to turn to in time of illness or accident—but also as friend, confidant, neighbor and fellow citizen. Usually, he was loved and revered, his opinions were sought on a wide range of problems and issues and he used his influence for the good of the whole community.

Much the same situation existed even in the large cities, up until the past 40 years or so. Most physicians were "neighborhood" doctors, rather than big city or "downtown" practitioners. They lived, practiced medicine and did their hospital work all in the same community, and they were part of the fabric of neighborhood life.

Nowadays, although there are many exceptions —although many individual physicians are still

---

Dr. Reuling, an internist, is a former speaker of the AMA House of Delegates and is at present an AMA trustee. He delivered this address at a meeting of the Black Hawk County Medical Society, in Waterloo, on June 19, 1956.

active in community affairs as both neighbors and citizens—I think we should have to agree that the general picture has changed somewhat. The growing complexity and speed of modern life and modern medicine have tended to isolate the physician from the nonmedical aspects of community life and public affairs.

A number of factors have contributed to this—the rapid scientific and technological advances in medicine, the intensification of medical education and training, the increased emhasis on postgraduate reading and study to keep up to date, the trend toward specialization, the tendency toward "downtown" practice in place of community practice, the development of large hospitals, clinics and medical centers, the increased demand for medical services and the growing emphasis on the economic aspects of medical care.

LACK OF TIME IS NO EXCUSE

As a result of these and other factors, many doctors argue that they simply do not have time to take part in community activities, or to interest themselves in public affairs or political issues. Some, as I indicated earlier, seem to think that it would be undignified and unprofessional to do so. Others, with no particular opinion pro or con, just aren't interested one way or another.

In any case, the net result of such thinking—in my opinion—is a definite loss to both the medical profession and the general public. The great majority of ethical, well-trained physicians have qualities of mind and character which should be used to advantage—not only in the solution of medical and public health problems, but also in facing up to the broad issues of our time.

In the first place, modern medical education and training teach the physician to assemble, sort and evaluate information . . . to reject and discard nonessential facts . . . and to arrive at sound, logical, unbiased conclusions. Are not these the qualities that are badly needed in our turbulent world today?

Secondly, the physician in the course of his daily work becomes familiar with people—their weaknesses, their hopes, their desires, their aspirations, their frustrations. This familiarity with people is another necessary qualification for any kind of intelligent appraisal of current problems. For is it not true that many of our difficulties today arise from the fact that industrial, mechanical and technologic advances have outstripped our philosophic, spiritual and personal abilities to cope with all the bewildering changes?

In the course of his everyday work the physician also comes to recognize the needs of the whole community—in such fields as public health services, sanitation, living conditions, recreational facilities, child training, child psychology and countless other aspects of the general environment. Who is better equipped to contribute to an understanding and solution of these difficult problems?

Finally, the well-rounded physician—especially after a few years in practice—recognizes that spiritual values and religious faith are important factors in both physical and mental health. Throughout the medical profession, I think, there is a spreading realization of that fact. At least two organizations that I know of—the American Foundation of Religion and Psychiatry, and the recently-formed National Academy of Religion and Mental Health—are focusing special attention on those relationships.

There again, it seems to me, is another reason for physicians to use their knowledge and influence in the broad realm of public affairs. For hasn't it been pointed out, time and time again, that what this modern world needs more than anything else is a renewal of emphasis upon religious, spiritual and ethical values?

These attributes and insights which exist in doctors should, of course, be applied primarily in the practice of medicine and for the benefit of our patients. In my opinion, however, we are failing as citizens if we do not also give a little of ourselves outside the daily routine of medical work.

And although medicine is a demanding profession, we must remember that we are not only busy people. Thousands of others—lawyers, dentists, architects, businessmen, industrialists, bankers, teachers and housewives—give valuable time to civic affairs and public issues because they feel it is their duty. We, too, must carry our share of that duty if we want to regain the place we once held in our communities.

PUBLIC-SPIRITEDNESS WILL BENEFIT OUR P-R PROGRAM

Just last summer in Chicago, at the annual meeting of the AMA, Dr. Dwight Murray, the incoming president, emphasized the need for improving personal relationships between physicians and patients. He said we must humanize and personalize the practice of modern medicine. He urged that we find some way of combining modern, scientific methods with the friendly, personal touch of the old-time family doctor.

With that I agree completely, and I believe that most of you would also. To carry that a step farther, to the task of humanizing and personalizing medicine, we must think not only of our patients, but also of our neighbors, fellow townsmen and the general public. We must humanize ourselves, in the public eye, not only as individual practitioners but also as a professional group.

That involves two major efforts, as I see it. One is to interpret the medical profession to society. The other is to discharge our civic and political responsibilities in the broad arena of citizenship, regardless of whether or not medicine is directly affected by the issues.

As to the first—interpreting medicine to society—we must realize that the practice of medicine no

longer is an isolated art, in relation to other professions or activities. Whether we like it or not, we simply must recognize that medicine today is interrelated with the business structure, allied professions, social and economic trends, public opinion, public relations, government and politics.

It no longer is enough for a physician to be a competent, ethical practitioner. He is constantly being called upon to make decisions on other levels and involving other fields. To make such decisions wisely, he must have at least some familiarity with the general trends in sociology, economics and government. In other words, he must gain some appreciation of the dynamics of social change and the realities of political action.

What we have to do, therefore, is to study society and interpret to society our profession's viewpoints on socialized medicine, social security, health insurance, federal aid to medical education, and many other issues which affect medical practice and medical care. In doing so, we must face up to the fact that there are people who do not like doctors and who do not like our present system of medical care. When criticisms are unjust, biased or inaccurate, we should do our best to correct them. At the same time, we should be adaptable and flexible enough to recognize the problems and deficiencies which do exist. And we should take pains to point out how such problems and deficiencies can be solved within the framework of the American system.

To do this, it isn't necessary to engage in high-powered, intensive propaganda activities. In fact, we will be really effective only if we carry out our educational work on an everyday, friendly, informal basis, making our facts and opinions known to our patients, friends and neighbors, and giving some of our time to the activities of service clubs, chambers of commerce, parent-teacher associations, citizens' committees, youth programs such as 4-H Clubs, Boy Scouts and Girl Scouts, and all other types of community groups.

No one physician, of course, can be expected to spread himself around by undertaking membership in all such organizations. But in a county medical society, for example, the members should try to see that they have a well-distributed representation in the various civic groups. As individual practitioners and as representatives of organized medicine, we should constantly be in position to interpret the profession's viewpoint—whenever possible in terms of positive action and constructive ideas.

LET'S PARTICIPATE AS GOOD AMERICANS

It is not enough, however, for us to speak out only when medical or public health issues arise. If we operate on that basis, we are vulnerable to the charge that we are acting in self-interest—that we become aroused only when our privileges or pocketbooks are threatened. But if we maintain a steady non-partisan interest in local, state and national affairs—demonstrating that we are sincerely concerned over all aspects of the public welfare—then our opinions will gain greater attention and respect when a medical issue does arise.

As servants of medicine, we physicians have tended for too long to leave social, political and international problems to others—others who in far too many cases have been less qualified and far more self-interested than we. With the bewildering decisions facing us today—on all geographical levels and in practically all realms of activity—there is a vital need for the best possible leadership and thinking from all segments of the population.

We doctors can help to supply that. The responsibilities of a citizen in a democracy are a full-time job. Civic and political participation cannot be limited to those times or issues when our personal and professional interests are involved. Unless we realize that fact, we conceivably could face the same fate as those physicians and other citizens in the many countries which have learned the lesson too late—after freedom was already gone.

We have an honorable heritage to uphold. John Locke, an English physician, in his TWO TREATISES ON GOVERNMENT, laid some of the foundation for later American democratic thought. I already have mentioned the five signers of the DECLARATION OF INDEPENDENCE. Dr. James McClurg, born in Virginia and a medical graduate of the University of Edinburgh, was a delegate to the convention which drafted the CONSTITUTION OF THE UNITED STATES OF AMERICA. And right today, Dr. Walter H. Judd, the distinguished Congressman from Minnesota, offers an outstanding example of the physician in public service. The history of medicine is dotted with countless other examples.

We cannot all be writers, thinkers, historical celebrities or legislators, but we *can* be good citizens. By so doing, we can help to humanize medicine—not just in the eyes of our patients, but also in the eyes of the community, the state and the nation.

CONGENITAL HIP NEEDS PROMPT ATTENTION

Every newborn infant who shows even the slightest sign of abnormal hip development should be treated immediately, Dr. Sherman S. Coleman, of the Department of Orthopedic Surgery at Northwestern University, has declared in the October 6 issue of J.A.M.A.

Because most patients treated early are restored to normal within a few months, he says that treatment should be started within days—or even within hours—after birth.

In examining 3,500 newborn at Primary Children's Hospital, Salt Lake City, he had found 32 cases of congenital dysplasia of the hip. These amounted to one case in every 110 births.

ETIOLOGY OF ATHEROSCLEROSIS

The work of Drs. Joseph Bragdon, Edwin Boyle and Richard Havel, of the National Institutes of Health, has further implicated faulty fat transport, which has for some time been suspected of causing atherosclerosis. A report of their experiments appeared in the July issue of the JOURNAL OF LABORATORY AND CLINICAL MEDICINE.*

The lipoproteins in human blood vary in density, or weight per unit of volume. Some of the larger and lighter (low-density) molecules tend to rise, like cream, if blood serum is allowed to stand for a few hours. Other heavier molecules will layer at the surface only if they are subjected to centrifugal force.

With an ultracentrifuge, the researchers separated the lipoproteins of pooled human serum into four classes or fractions, on the basis of density. Fraction one, the lightest, concentrated on the surface of the test tube as a solid buttery layer when the serum had been subjected to 9,500 gravities for ten minutes. After the "butter" had been removed, salt water was added and 105,000 gravities of centrifugal force were applied throughout 22 hours. By the end of that time, the next-lightest class—fraction two—had collected in a butter-and-cream layer at the surface. Twenty-two and 44 additional hours of 105,000-gravity centrifuging, respectively, brought fractions three and four to the top.

The researchers injected samples of the newly designated fractions into the tail veins of 43 male rats. Five hours later, they killed the animals and found abnormal deposits of fatty material on the valves and inner linings of the hearts and in the coronary arteries of the rats that had received fractions one, two and three. Fraction four produced no such abnormalities.

They found, on examining the rat serum, that the injection of low-density molecules had caused the appearance of those of higher density. This was a finding that they had anticipated, for the reduction of large molecules into the more compact, highly dense ones is thought to be a normal part of fat metabolism. More surprising was an elevation in the numbers of low-density lipoproteins following the injection of high-density ones. The researchers theorize that abnormal quantities of the high-density material may have blocked the natural mechanism for removing those of lower density.

The low-density lipoproteins (fractions one, two and three) are thought by many authorities to be implicated in atherosclerosis, chief cause of death in the United States. The blood plasma of men generally contains a higher proportion of these fractions than does that of women, and nearly twice as many men as women die of atherosclerotic heart disease. Sufferers from nephrosis, diabetes and other diseases which are conducive to arteriosclerosis also have relatively greater proportions of low-density lipoproteins than do normal persons.

* Bragdon, J., Boyle, E., and Havel, R.: Human serum lipoproteins; some effects of their intravenous injection in rats. J. LAB. & CLIN. MED., 48:43-50, (July) 1956.

AMA CLINICAL MEETING IN SEATTLE

The AMA's tenth clinical meeting, to be held in Seattle November 27-30, will focus attention on the diseases and conditions most frequently met by America's family physicians. More than 2,500 doctors are expected to attend the meeting. Center of activities will be the Civic Auditorium, where scientific sessions will be held and where the more than 200 scientific and technical exhibits will be displayed. Headquarters for the House of Delegates and the site of meetings of the Board of Trustees, councils and reference committees will be the Olympic Hotel.

Some 45 papers dealing with such varied subjects as fluid balance, urologic problems, office psychiatry, varicose veins, fractures, diabetes and heart disease will be given by well known physicians from all parts of the country. More panel discussions than ever before will be featured, including ones on: Problems of Prenatal Care; Problems of Aging; Care of the Cleft Lip and Palate Child by the Coordinated Team Approach; Late Complications of Chronic Liver Disease; Vascular Diseases; Pelvic Pain; Bleeding of Early and Late Pregnancy; Office Gynecology; Diagnostic and Therapeutic Problems of the Stomach and Duodenum; Fracture of the Long Bones; Congestive Heart Failure; Diabetes; Tranquilizing Drugs; Coronary Heart Disease; and Surgical Management of Malignancies.

Of particular interest will be a special exhibit on fractures and a manikin demonstration of problems of delivery. A group of exhibits has been assembled to depict the history of medicine in the Pacific Northwest and to show the contributions which doctors have made to the development of the area.

Both morning and afternoon color television clinics will be conducted on a variety of subjects. The medical motion picture program, however, will be held afternoons only, except for a special premiere showing Tuesday evening, November 27, of a new medicolegal film on the doctor as medical expert witness.

Since Seattle is one of the principal embarkation points for visits to Hawaii, a post-conference visit there has been planned. Physicians and their families can board planes leaving Seattle on December 1, the day following the close of the clinical session, and can spend 10 days in and about Honolulu. Those who wish further information on this phase of the program are invited to address Mr. Carl L. Helgren, c/o Western Hotels Sales Office, Seattle.



Progress in the Surgical Management of

Diverticulitis of the Colon

EDWARD S. JUDD, JR., M.D.

ROCHESTER, MINNESOTA

Recent reawakening of interest in diverticulitis of the colon has led to the observation that this distressing condition is still largely the province of the internist in many medical centers. Traditional medical management has included repeated hospitalizations with strict rest in bed, application of hot packs to the abdomen, decompression of the intestine by means of a nasal tube, gradual resumption of a cautious dietary regimen and, undoubtedly, the use of a profusion of antibiotics and sulfonamide preparations. If each patient were to experience only one isolated attack, this medical plan probably would do well in many instances. But repeated attacks of this disease are not at all uncommon, and the patient repeatedly is taken from his home and job to be subjected to this rather archaic treatment.

In spite of dramatic improvements in intestinal preparation for extensive surgical resection, even the surgeons in some centers still follow this more or less obsolete type of thinking. The reason for their reluctance in assuming responsibility for the care of the patient who has recurrent diverticulitis apparently has been predicated upon the past record of surgical management, which, though it has been relatively safe, has not been particularly brilliant.

In a great many cases the colon that was affected by intense inflammation could not be removed, and intestinal continuity could not be restored immediately. Therefore, a standard surgical technic was evolved that required an expensive, time-consuming, distressing series of operations. Furthermore—and this was a feature that patients found particularly distressing—at least one and occasionally several colonic stomas were a necessity. Even though they were referred to as "temporary," some of these stomas had to remain open for one or two years.

My colleagues and I have no quarrel with surgeons who have insisted upon multiple-stage operations in the presence of abscesses, severe fistulas, perforation or obstruction. In fact, we have never hesitated, ourselves, to perform the operation in exactly that manner whenever there was any question. Pemberton and his co-workers[1] made an excellent survey of the experience with this condition at the Mayo Clinic about ten years ago, and pointed out some facts that have remained undisputed ever since. Dramatic healing was the rule within a few months after the establishment of a colonic stoma proximal to the extremely inflamed portion of the colon. In fact the roentgenologist would be hard put at that time to find any evidence of diverticulitis. In such an instance, the temptation merely to close the colonic stoma would be rather great. But Pemberton's group, very rightly, cautioned against such a plan because at least two-thirds of the patients in their considerable series had further attacks of extremely severe diverticulitis sooner or later. For that reason, we insist on resection of the diseased portion of the intestine before considering closure of the stoma. We are mindful that the severe inflammatory reaction in the mesentery and surrounding structures makes resection an operation of considerable technical difficulty. In fact this is one instance in which there is a definite use for a more or less obsolete "extraperitoneal operation" of some type, such as the Mikulicz procedure. The subsequent crushing of the colonic spur, although it may require the patient to make numerous trips to the operating room and require a rather prolonged interval before the colonic

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stoma finally is closed, undoubtedly represents the safest possible method in the case of pronounced inflammation.

SURGICAL FEATURES IN DIVERTICULITIS

The surgeon's interest in diverticulitis centers upon its severe complications. First among these is an abdominal mass that may be palpable through the abdominal wall, on rectal examination or occasionally by bimanual means. The gynecologist occasionally will be concerned about such a mass, and confusion with a left ovarian or adnexal lesion might lead to unsatisfactory results. Obviously, a question arises as to whether or not it is malignant. Even with all the modern improvements in diagnosis, a definite answer frequently cannot be given until the pathologist has had an opportunity to review the specimen.

Another common complication of diverticulitis is colonic obstruction, which may take any one of several forms. Acute, extreme obstruction is an emergency condition, and early relief is necessary as a means of preventing perforation of the greatly distended colon. In less dramatic obstruction, chronic obstipation is the rule, and the patient may be considerably less distended. Thus, time may permit an orderly preparation of the colon so that, after complete decompression, an emergency situation does not occur. If the obstruction cannot be overcome in a relatively short period, it has been our rule to proceed with transverse colostomy. Although, as already indicated, some field of usefulness remains for a Mikulicz type of resection, leaving the patient with a temporary double-barreled sigmoidal stoma, such an operation is carried out with considerable risk to the patient if extreme obstruction of the proximal portion of the colon is present. We have learned to perform the preliminary colostomy in the transverse colon so that the entire left side of the abdomen is kept clean and undisturbed and so that subsequent resection can be extensive and uncomplicated by the presence of a colonic stoma in that region. There is a temptation, by closing the colonic stoma at the time of the resection, to eliminate the necessity for a third stage. But by the time of the resection, the distal part of the colon has contracted to such small caliber that a proper end-to-end anastomosis is often not feasible. Thus, the average patient requires a third operation—namely, closure of the colonic stoma. As a result, unless the patient's work is such that he can pursue it while he has a colonic stoma, he may be away from his job for a year or more.

One modern advance in the multiple-stage method of dealing with complicated diverticulitis is the reduction of time before the colon is closed completely. When it was necessary to perform a preliminary colostomy, we formerly insisted upon waiting a minimum of six months to allow the extremely inflammatory component involving the region of diverticulitis to subside sufficiently to permit safe resection. But it was learned that small abscesses still might be present even at the end of such a period. Resection was done on some of these patients anyway, and because the results were satisfactory, the interval has been shortened considerably. After resection with anastomosis, we formerly insisted upon a period of some months before closing the proximal colonic stoma. At present, this interval has been reduced appreciably.

A third feature of diverticulitis of surgical interest is hemorrhage. Previously, we were not much impressed by the possibility of this complication, but it is coming to our attention more and more often at present, and is being discussed in current surgical literature. It used to be thought that any tumefaction in the colon accompanied by melena meant carcinoma until proved otherwise. But Dr. C. W. Mayo[2] reported that hemorrhage was severe enough to be of prime importance in eight per cent of a series of 202 patients with proved diverticulitis. Bleeding appears to be only one of the complications present in some patients. The true problem patient is the one who has severe melena and in whom nothing but diverticulosis has been discovered at the completion of study. The question today is whether resection of the involved portion of colon is indicated. There have been isolated reports of excellent results when resection has been done under such conditions, although the evidence is still no more than presumptive. More commonly, it is found that the surgical specimen after such resection discloses a polyp or polyps.

Another vexing complication of diverticulitis is the formation of fistulas. In many instances such fistulas are the consequences of an incorrect type of operation, as when proximal colostomy has been omitted from an operation for a mass that has resulted from diverticulitis with perforation. Such surgery is doomed to complete failure in almost every instance. A sigmoidocutaneous fistula is problem enough, but often the fistulous process spreads to involve other loops of intestine, the urinary bladder and other structures. This can be one of the greatest problems, and the risk that we encounter in attempting to correct this situation is appreciable. If any single factor should be stressed in this connection, it is the routine performance of proximal colostomy whenever a fistula may be the result of any attempt at correction of the process of diverticulitis itself. Patients who have had recurrent attacks of diverticulitis and who occasionally pass gas by way of the urethra should by all means be subjected to surgical removal of the involved colon, for neglect of such a condition often leads to disastrous results. Free perforation of the segment involved by diverticulitis may result in generalized peritonitis, but nature's well-known effectiveness in walling off the process more commonly produces extreme local cellulitis followed by the formation of an ab-

scess that allows the surgeon time to undertake drainage.

PRESENT-DAY MANAGEMENT OF DIVERTICULITIS

At present, when my colleagues and I are confronted by a case of extremely acute diverticulitis, we are inclined to follow the conservative plan long enough to get some idea of the true condition of the patient. If the problem is one of distention of the colon, we make every effort to relieve the distention, but we do not prolong this attempt unduly. Transverse colostomy is done early if it is evident that the obstruction is not relenting properly. If there is evidence that there has been severe local reaction about the intestine, but if it seems to be quieting down, intensive conservative measures often allow this process to "cool off" completely. Judicious use of antibiotics, nasal-tube suction, local heat and bed rest will augment this involution considerably. The chief recent advance made in this connection is the practice of insisting that the patient return during the quiescent interval for thorough evaluation, with the possible interval resection of the diseased intestine. If the process in less dramatic in its inflammatory manifestations, if an abdominal mass is present and if it is evident that surgical measures will be indicated, the surgeon should not hesitate to place the incision directly over the mass, which will be in the sigmoid in the majority of instances. In some cases, preliminary dissection will reveal that the sigmoid and a portion of its mesentery can be excised with relative safety, but the perisigmoiditis might make anastomosis a hazardous step. In such instances, we do not hesitate to employ the Mikulicz type of operation, leaving the patient for a time with a double-barreled colonic stoma that can be closed later.

Occasionally we see a patient on whom an emergency colostomy has previously been done as a lifesaving measure. Unfortunately, the stoma may have been made in the descending colon or in the upper portion of the sigmoid. Although this works nicely while the situation is acute, it leaves the patient with a colon that is severely bound down in that region, and a subsequent resection is, of necessity, made considerably more difficult. For that reason, we continue to argue for transverse colostomy. In such cases—ones in which the patient has had a colostomy because of severe obstruction and now has a well-decompressed intestine—the surgeon is faced with a bit of a dilemma. Whereas the original roentgenologic studies of the colon revealed only an obstructive lesion, and whereas, at the time of the preliminary operation, it could not be determined whether the process was benign or malignant, the surgeon must now make a decision based upon presumptive evidence. In such a situation, we subject the patient to a second roentgenologic study of the colon about four weeks after the colonic stoma has been established. At that time, the roentgenologist frequently can decide rather accurately whether the lesion represents benign diverticulitis, or whether there is a distinct chance of its being a malignant tumor. If all the consultants consider that the evidence is overwhelmingly indicative of a benign process, we are inclined to wait at least three months before doing a definitive resection. But if considerable doubt is present about the nature of the lesion, we do not wait, but irrigate the colon as thoroughly as possible and proceed at once with the resection, which has been rendered considerably easier in a surprising number of cases by the presence of the colonic stoma. Such experience suggests that surgeons need not wait anywhere nearly so long between stages in the average case as they used to do.

RECENT PROGRESS

Up to this point I have stressed the frequent necessity for multiple stages in surgical management. With modern-day adjuncts in preoperative preparation, anesthesia and supportive therapy during the operation, with all of the helpful products that are available for postoperative care, and with stress on antibiotic therapy and blood tranfusion, the surgeon is now able to consider one-stage prophylactic resection in those cases in which repeated acute attacks of diverticulitis have been the rule. At the risk of being repetitious, my associates and I have been stressing this possibility time and time again in our own locality, in the hope that general awareness of modern-day potentialities will bring an increasing number of patients for surgical consultation. We continue hoping to see fewer such people as emergency inpatients and more of them in the outpatient clinic between attacks, when they are entirely free of symptoms. It is hoped that careful survey of the clinical records in such cases can lead to the conclusion that after adequate preparation of the colon, an orderly, properly performed one-stage resection can be accomplished with extremely low risk to the patient.

Dr. Mears and I[3] were stimulated to determine just what had happened to those diverticulitis patients for whom single-stage resection with end-to-end anastomosis had been carried out at the Mayo Clinic. We thought that the study of a consecutive series without any selection would give information that could be presented to patients who at the moment did not exhibit complications of their diverticulitis but who had had many attacks in the past and from whom the disease might now be eliminated in one operation without undue risk. Only 15 of 68 consecutive patients had been free from all complications at the time of resection. The remainder had had at least one, and some of them had had all of the complications that I have mentioned. The one-stage operation had worked in an extremely satisfactory manner, even in cases in which fistulas were present. It appeared evident that the surgical

problem could have been handled with even greater ease if these patients had been treated before the fistulas made their appearance. None of the patients in this study had undergone resection primarily because of hemorrhage, although six of them had mentioned melena as a part of their syndrome.

As one might expect, a large number of the patients had undergone operation because of an abdominal mass whose true nature could be proved only by exploration. In the face of all the preoperative complications, we had expected that their stay in the hospital might be rather prolonged, but we were surprised to find that the average period of postoperative hospitalization had not been much longer for them than for patients who had been subjected to any other major abdominal operation. No point would be gained by comparing the length of hospitalization for the single-stage operation with that for the multiple-stage operation. The tremendous saving in time away from work afforded by the newer technic, with the attendant reduction in expense of hospitalization and medical care, to say nothing of the relief from psychic trauma, is too obvious to require further comment.

At present, my associates and I carry out an active program of mechanical cleansing of the colon for two days prior to operation. Although antibiotics have introduced an entirely new era, one must be judicious in their use. I now employ neomycin alone during the two-day period of hospitalization prior to resection. The side effect of potentially lethal enterocolitis accompanying the heroic use of some of the other antibiotics has not been a problem to date with neomycin used alone.

When time permits, operation is deferred in extremely obese patients. Since for some reason the obese patient is the one most likely to exhibit diverticulitis and its complications, the surgeon should insist upon a substantial reduction in weight, if possible, before undertaking what may be a prophylactic operation. Unfortunately, it is not often completely feasible.

The hospital mortality rate in the surgical management of diverticulitis has declined steadily in recent years. This is not due by any means to a dramatic improvement in surgical technic, but has rather been due to the accumulation of experience in the proper selection of patients and—which is more to the point—to the proper selection of operations for individual patients. The intelligent application of the effective adjuncts now available in such great numbers has led to an almost ideal situation with regard to preoperative, operative and postoperative care. Only one death occurred in the afore-mentioned series of 68 cases in which single-stage operations were done, and that one death had nothing to do with diverticulitis or its surgical treatment. It occurred suddenly on the sixteenth postoperative day from an entirely unrelated cause.

SUMMARY

Diverticulitis of the colon is a relatively common disease that involves the sigmoid in the great majority of cases. Patients should seek surgical consultation much earlier in the course of their disease than has been their custom. Surgeons should be aware of the modern-day adjuncts to surgical treatment, and they should take a more positive stand. Whereas eradication of the process and its severe complications still must, in many instances, be carried out in a series of operations, surgeons are now in a position to consider seriously the employment of one-stage operations in carefully selected cases. Prophylactic single-stage resection performed during the asymptomatic phase of the disease has a great deal to offer patients suffering from repeated acute attacks, and such an operation is attended by an extremely low risk to the patient.

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Just One Vote!

One vote elected the mayor in Minnesota's fourth largest city last year.

A congressman was elected in Maine this fall by a margin of less than 30 votes in a total balloting of 115,000.

In 1948, Harry Truman carried California and Ohio by less than one vote per precinct.

In 1950, Governor G. Mennen Williams, of Michigan, was reelected by less than one vote per three precincts.

Senator Lyndon Johnson won his seat the first time by 87 votes in all of Texas.

Governors Meyner, of New Jersey, and Harriman, of New York, are presently in office by virtue of vote margins of less than one vote per precinct.

The Use of Miotics in Esotropia

PHILIP KNAPP, M.D.

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JAVAL, IN 1896, was the first to use miotics in the treatment of esotropia. In 1949, Abraham published a preliminary report[1] on 44 cases of esotropia treated with pilocarpine, eserine and di-isopropyl fluorophosphate (DFP). In August, 1952, he added 88 cases,[2] making a total of 132, of which 109 were period and 23 were constant. He reported that treatment with miotics was particularly successful in cases with good and equal visual acuity, and with an equal hypermetropic refractive error in the two eyes. As one might have expected, such treatment was more effective in periodic than in constant esotropia.

Up until August, 1953, he had encountered only two sensitivity reactions in the 300 patients whom he had treated with miotics.[3] But at that time he became aware that such miotic therapy tended to produce cysts of the pigment seam of the iris. In March, 1954, he published an article on those cysts, together with some beautiful illustrations in color.[4] In his series of 66 cases, 42 had developed cysts of the pigment epithelium at the pupillary border. The ages of the patients ranged from 2½ to 23 years, and the bulk of them were between 6 and 9 years of age. The cysts appeared in from 1 to 40 weeks (average : 10 weeks). He found good miosis associated with the development of the cysts, whereas with active pupils, cysts did not appear. He had been using DFP once or twice a day, and after he stopped those instillations, the cysts shriveled up in from 2 to 42 weeks. All but four of them disappeared within 15 weeks.

Theoretically, one uses miotics in esotropia to produce accommodation peripherally by direct stimulation of the ciliary muscle, thus reducing the need for central accommodation, with its associated convergence. A miotic should prove useful in eliciting the accommodative factor in any case of accommodative esotropia, and particularly in the so-called atypical cases. These are straight for distance with glasses, but break into an esotropia for near focus because of an abnormal accomodation-convergence ratio, or to a hypo-accommodation that requires excessive accommodative effort.

Since DFP or Floropryl® (di-isopropyl-fluorophosphate—Merck Sharp & Dohme) forms an irreversible combination with local cholinesterase, thus necessitating replacement from elsewhere in the body or new local synthesis, it has superseded pilocarpine or eserine. It requires less frequent instillation and less constant supervision. Although solutions of strengths varying from 0.005 to 0.05 per cent were tried, the stronger concentrations appeared to have no greater effect than the weaker ones. For shelf stability, we now use 0.025 per cent Floropryl, or have the local pharmacist dilute the standard 0.1 per cent solution of Floropryl with peanut oil U.S.P. There has appeared to be no advantage in using sesame oil or anhydrous mineral oil and two per cent polyethylene ointment as the vehicle, instead of peanut oil.

When we began using DFP in the treatment of esotropia, we limited its use to the theoretically favorable cases. Then, encouraged by our initial success, we started using DFP in all sorts of esotropia. Following the appearance of Abraham's article about the production of iris cysts, we began examining all of our cases for these cysts and found that practically every case that had been on miotic therapy at nightly intervals for over two months had developed them. We immediately stopped using the miotic until we noticed that the cases instilled no more frequently than every second night had developed none. Just as Abraham had reported,[4] the iris cysts shriveled up like grapes turning into raisins, as soon as we quit using the miotic. We believe that the production of the cysts is due to immobilization of the iris against the surface of the lens, rather than to the development of miosis. We found iris cysts were just as common in pupils 3-4 cm. in diameter as in miotic pupils. The determining factor was the reactivity of the pupil. When pupils were active, cysts did not develop; but when they were sluggish, the cysts appeared. This finding suggests a hypostatic mechanism.

Our efforts to produce iris cysts experimentally in the rabbit and guinea pig failed, for even "tabun" (reported[5] to be many times more powerful than DFP) does not produce a constant miosis for 24 hours in such animals. However, thanks to Dr. Leonard Christiansen, of the Eye Pathology Department at the University of Oregon Medical School, we have a slide of the eye of a 12-year-old boy who had been on DFP therapy for glaucoma. The development of iris cysts had led to the mistaken diagnosis of malignant melanoma, and the consequent enucleation of the eye. Unfortunately, the cyst collapsed on sectioning, but in the slide one can definitely see the changes in the epithelium of the pigment seam of the iris.

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OUR PRESENT REGIMEN

Against the background that I have described, we have gradually evolved our present regimen for using DFP. In those cases in which we wish to elicit the accommodative component, we prescribe one drop of DFP in each eye at bedtime for two weeks. Bedtime is chosen over morning to minimize the possible brow ache and visual blurring from ciliary spasm, and to spare the patient the annoyance of looking through an oily film. The two-week interval is chosen to minimize the chances of producing iris cysts, and yet to give ourselves as long a time as possible in which to evaluate the effect of the drug. The mother is warned to keep the bottle tightly stoppered, and to avoid washing the dropper or touching it to the conjunctival sac, lest the DFP become hydrolized and ineffectual. At the end of the two weeks, the patient is reexamined. If there has been little or no reduction in the amount of deviation, the accommodative component is regarded as negligible. If there has been a signficant reduction or complete elimination of the deviation, the miotic is continued for two months at a frequency of every other night. If this frequency fails to eliminate the deviation, miotic therapy is stopped. In cases where the deviation has been eliminated by nightly instillation of DFP, but not by instillation every other night, glasses are prescribed. In cases where the deviation has already been eliminated by glasses, DFP is started at a frequency of every other night. On this regimen no case has developed iris nodules of significant proportions, and only a few patients have developed even small nodules.

Our use of DFP started in January, 1953, and the findings reported here are as of March, 1956. In the intervening 38 months, we treated 316 cases. The average age at the time miotic therapy was started was 5.65 years, and the range of ages was from 4 months to 27 years. The refractive errors ranged from plano to +7.00.

TABLE 1

REASONS FOR STARTING DFP

Instead of trial of glasses	126
Instead of glasses	123
Amblyopia	47
Anisometropia	1
DFP and glasses	7
Instead of glasses for the summer	6
For spasmodic esotropia for near	13
	323

The reasons for our trying miotic therapy in the 316 cases are given in Table 1. The apparent discrepancy in numbers is due to the fact that some cases fell into two categories. For example, after amblyopia had been treated, the same case was then placed on DFP in each eye to elicit the accommodative component of the esotropia.

The 126 cases in which DFP was prescribed rather than glasses were ones with reactive errors within the normal range of hypermetropia for the patient's age group. We wished to elicit the accommodative element in the esotropia before deciding upon further therapy.

TABLE 2

COMPARISON OF VISUAL ACUITY WITH GLASSES OR DFP

Same	92
Better with DFP	7
Worse with DFP	7
Too young for testing or failed to return	17

In 123 cases DFP was prescribed instead of glasses. Table 2 compares DFP and glasses as ways of augmenting visual acuity. In only seven cases was there any significant reduction in visual acuity (two lines or more), and of those seven cases in which visual acuity was worse on DFP than with glasses, four had significant astigmatic errors (+1.50 and over). One case had six diopters of hypermetropia, and the other two had refractive errors of +2.75 and +2.00, respectively. The cause of the reduced visual acuity in the first five cases is apparent. In the last two cases, it is probable that the cause was an induced myopia.

TABLE 3

COMPARISON OF DEVIATION WITH GLASSES OR DFP

Same	93
Failed to return	11
Better with DFP	13
Worse with DFP	6

Table 3 shows the comparative effectiveness of DFP and glasses as a means of controlling deviation. The criterion was whether the case that had been a tropia became an intermittent or a phoria for distance and near measurements. Slight shifts in the measured amounts of deviation were discounted as being within the margin of error of the examination. In general, the measurements for distance were slightly worse with the miotic, whereas the measurements for near were better with the miotic. Cases that were relatively orthophoric for distance but esotropic for near with glasses were sometimes changed to minimally esotropic for distance and intermittent or phoric for near. The mechanism of this change in the distance measurement is unknown. Perhaps the peripherally induced accommodation inhibits negative accommodation, with its associated divergence that simulates a divergence paresis and produces an esotropia for distance. Such shifts were considered as neutralizing each other and were not counted as either better or worse in our tabulation.

Of the six cases that were worse on DFP, one case had a significant astigmatic error. In the other five cases, the errors ranged from +3.00 to +5.00. In two of them, the deviation had been controlled

on DFP every night, but esotropia developed when the frequency was reduced to every other night. In the remaining three of these cases, the reason for failure is unknown. Unfortunately, no note of the pupillary size was made, and perhaps the drug had become hydrolyzed.

Of the 13 cases that showed relative orthophoria for distance, with a marked esotropia for near fixation in spite of full strength distance correction, seven cases were changed to small esophorias for near by means of DFP. Two of these cases had had previous bimedial recession of the interni. In five cases, DFP failed to eliminate the inshoot on focusing, and one case failed to return. One of the successes was a patient who had been orthophoric with bifocals.

In the treatment of amblyopia when the child with hypermetropia refuses to tolerate complete occlusion or occasionally refuses to keep his patch in place because the weather is hot, DFP is instilled at bedtime every other night in the amblyopic eye, and atropine is instilled daily in the fixating eye. This method appears to be more satisfactory than just the instillation of atropine in the fixating eye, for it stimulates accommodation to decrease the hypermetropia, and thus increases the clarity of the image in the amblyopic eye. In cases with significant hypermetropia, atropine in the fixating eye sufficiently blurs its image, particularly for near, so that the child starts using the previously amblyopic eye. In the case of eccentric fixation, the blurred but correct visual direction of the previously fixating eye appears to help the child start fixating centrally with the amblyopic eye.

In successfully treated cases, the child first switches fixation for near to the amblyopic eye, while continuing to fixate for distance with the non-amblyopic eye. Then the fixation shifts for distance too. Care must be taken to stop the atropine at that time, or a difficult amblyopia may develop in the previously fixating eye. If the child is old enough to be checked for visual acuity, putting up the refractive correction before the atropinized eye keeps a check on the development of amblyopia in that eye.

Of 47 cases treated in this fashion, 23 have been successfully switched completely or made to alternate fixation. Four cases failed to return. This does not appear to be an astounding percentage of successes, save that in 12 of these cases occlusion had failed completely. Of the 20 failures, three had to have the miotic stopped because of (1) headache, (2) tantrums and (3) iris nodules after four weeks. Six of the remaining 16 cases had grossly eccentric fixation. These cases remain a therapeutic dilemma. Six of these cases have also had orthoptic training, consisting of hand and eye exercises. Two of the six have been relieved of difficulty, although they had shown definite eccentric fixation before treatment.

Table 4 shows the results of miotic therapy.

Group A. Three of the seven cases placed on DFP plus full-strength glasses showed no improvement, and in consequence the miotic was discontinued. One case failed to return for evaluation.

TABLE 4

RESULTS OF TREATMENT WITH DFP

A. Still on glasses and DFP	3
B. Developed Exotropia	2
C. Back to essential glasses for school	5
D. Reaction to DFP	22
E. Allergy to DFP or peanut oil	3
F. Pigment cysts of pupillary seam	16
G. Failed to return	24
H. Preferred glasses	3
I. After treatment of amblyopia	42
J. Still esotropia	148
K. Still on DFP	38
L. "Cured"	10
	316

The fifth case has been wearing +4.50 ⌒ +1.00 cax 90° O.U., plus DFP twice a week for the past 26 months. His last measurement showed orthophoria for distance and esophoria of 6 for near. Two cases are small tropias on glasses plus DFP twice a week, whereas on glasses or on DFP alone, their deviations had been significant.

Group B. Two cases became exotropic, and the miotic was stopped.

Group C. Of the six cases placed on DFP for the summer vacation, one case developed a reaction to the drops, and the other five resumed their glasses when school recommenced in the fall. One of these has followed that routine for three summers, and two of them have followed it for two summers.

Group D. Twenty-two cases developed a reaction to the drops consisting of brow ache, or redness and pain. In all such cases the drops were stopped.

Group E. Two cases developed a typical follicular conjunctivitis which was attributed to an allergy. The third case developed a cough on the day following the instillation of the miotic. Because the cough ceased when the miotic was stopped, it too was attributed to an allergy.

Group F. Although there were many more cases than these in which mild cystic changes developed in the pigment seam of the iris, 16 cases were actually taken off miotic therapy because of this complication. Some of these were doing wonderfully, and the parents were most upset at the children's having to go back to wearing glasses.

Group G. The 24 cases that failed to return for follow-up examination require no comment save that seven of them have been considered "cured."

Group H. Only three patients preferred glasses to miotic therapy. That is not to say that all children like the drops, but when offered the choice of glasses or drops, few of them have said they would rather wear glasses.

Group I. Forty-two cases were taken off drops

when this phase of their treatment for amblyopia was discontinued.

Group J. In 148 cases the miotic was stopped because a significant esotropia was still present.

Group K. Thirty-eight cases were still on DFP at the time of the study. Thirty-five of these will be considered together, and the other three separately. In the larger group, the refractive error ranged from +0.75 up to +6.00, the average being +3.3. In 29 of these cases, the refractive error was between +2.00 and +4.00. Only four had significant cylindrical refractive errors (between +1.50 and +2.00). There were two instances of anisometropia: 1 diopter and 1.25 diopters, respectively. These cases had been on miotic therapy an average of 14.3 months, the range being 2 to 34 months. Eight of these had been on therapy for 2 years or more. The frequency of instillation at the time the study was made was every second night in 16 cases, twice a week in 18, and weekly in 2. Prism cover test measurements taken in the afternoon preceding an instillation revealed that 8 cases were cosmetically straight with a small esotropia, that 15 cases were small intermittent esotropias, and that 13 were orthophoric or had an esotropia of less than 10 prism diopters. All cases revealed fusion, the amplitudes on the troposcope showing varying degrees of suppression. It was found difficult to give these patients orthoptic training while on miotic therapy, and it is our opinion that those patients who had antisuppression and fusion training before being placed on miotics showed better binocular cooperation sensorially than did those patients who had not had such training. In several cases, miotic therapy was interrupted for such training, and then was reinstituted after the sensorial status had been improved.

Of the three cases whom I shall single out for individual comment, one was eight years of age, with +4.50 in O.D. and +2.50 in O.S. With glasses —which he detested—he measured an esophoria of 3≏ for distance and near. On miotic therapy in the more ametropic O.D. only, twice a week, he had maintained this status without glasses for 26 months at the time of our study.

The second and third cases were young ladies of 25 and 27 years of age who both showed refractive errors of +6.00 in each eye and an amblyopia of 20/70 in the habitually deviating eye. Wearing their full correction, both displayed a cosmetically satisfactory residual esotropia, but without glasses, each had a large esotropia. Both felt that glasses were ruining their social life. In the first case, the glasses were reduced to +3.00 spheres, which produced a deviation of 25 ST and 30 ST′, with retention of 20/20 visual acuity in the fixing eye. Miotic therapy was then instituted, and at a frequency of twice a week for the past 12 months, it has allowed the patient to have straight eyes and to use her glasses only for close work.

The second woman had a single recession of her left medial rectus muscle which temporarily allowed her to look straight with only +3.00 spheres. But she was bothered by postoperative diplopia, and one month postoperatively she chose her blind spot as a solution for this difficulty. She was placed on DFP, which reduced her deviation to a relative orthophoria. After 16 months on a frequency of every second night, she uses her +3.00's only for close work. She is a school librarian.

Group L. The final group for discussion is made up of the 10 "cures." The average age at the start of miotic therapy was six years, and the range was from four to 10 years. The average refractive error was +2.75, and the range was from plano to +5.00. Interestingly, the visual acuity of the case with plano refractive error was 20/30 O.U. with the E chart on miotic therapy. The average length of treatment was 14 months, and the range was from four to 27 months. In all cases the measurements were less than an esophoria of 10 diopters. On the troposcope, all showed steady fusion, with good amplitudes and minimal suppression. The follow-up averaged 11 months, the range being from 3 to 21 months. Needless to say, a much longer follow-up is necessary before such cases can be classified as really cured. Only one case that had been considered a "cure" had a relapse, and that patient again responded to miotic therapy.

In conclusion, let me state our feeling that miotic therapy has a definite place in the treatment of esotropia. Though it is not a cure-all, it is a useful adjunct to other recognized measures. If used judiciously, it is perfectly safe.

SUMMARY

1. DFP is as good as, or better than, glasses in the range from +2.00 to +4.50, unless there is significant astigmatism (+1.50 or more).

2. In very young patients and in patients with normal hypermetropic refractive errors, it is particularly useful in eliciting the accommodative factor preoperatively, and it spares the patient the expense of buying glasses.

3. It is superior to single-vision lenses in patients with abnormal A/C, but is still not the entire answer to spasmodic inshoot on accommodation.

4. It is a useful adjunct to the therapy of amblyopia.

5. It may be useful in anisometropia and in addition to glasses of reduced strength, but we can't be sure, for we haven't as yet treated enough cases of these types.

6. About eight per cent of patients are unable to tolerate the drug, but actual allergy occurs in only one per cent.

7. The danger of the production of iris cysts is minimal if daily instillation does not exceed two weeks. For those cases in which the deviation has

been eliminated by the daily instillation of the miotic or by glasses, DFP can be prescribed every other night or less frequently without producing iris cysts of significant size.

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The Differential Diagnosis and Treatment of

The Jaundice Patient

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The jaundiced patient may present the physician with one of the most difficult and yet one of the most important diagnostic problems in clinical medicine. The evidence available to him is usually circumstantial, and he often has need of the deductive intuition of a Sherlock Holmes in separating the real criminal from a number of suspects.

The crux of the problem lies in the question, "Does this patient require surgery?" Since the wrong decision may lead to the death of the patient, the analogy between the detective and the physician is not inappropriate. If surgery is undertaken in a patient with severely diseased liver cells, complete liver failure may result directly from the procedure. On the other hand, if surgery is delayed too long in a patient who has a calculus impacted in his common duct, irreparable damage to the liver cells may take place.

Though the classification of jaundice into medical and surgical types is old and has been much criticized, it focuses our attention on the importance of the decision of which I have been speaking. If, from a practical standpoint, we can fit each patient into one or the other of these two groups, we are likely to apply the correct treatment, whereas more elaborate, though more accurate, classifications may serve merely to obscure the issue at stake.

Before discussing the various types of jaundice, I should like to point out two pitfalls that one must be careful to avoid in arriving at a diagnosis. First, one should use daylight when he examines the sclerae of the eyes for jaundice in all but the most obvious cases. Artificial light can be astonishingly deceptive. Second, one should remember that an occasional patient may have a yellow discoloration of the skin as a result either of Atabrine therapy or of the ingestion of large quantities of carrots or other highly pigmented foods. The latter condition, known as carotenemia, commonly occurs in patients with high serum lipids due to diabetes, nephrosis or some other metabolic abnormality. The blood in such patients will show a raised icterus index, but not a raised serum bilirubin.

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DIRECT- AND INDIRECT-REACTING BILIRUBIN

Table 1 shows that the medical type of jaundice must be divided into hemolytic and parenchymatous subtypes. Obstructive jaundice has been taken as synonymous with surgical jaundice and refers, of course, to extrahepatic obstruction. A knowledge of the origin, circulation and fate of bilirubin in the body is essential to an understanding of how jaundice develops in these three types of patients.

TABLE 1

CLASSIFICATION OF JAUNDICE

Hemolytic, Parenchymatous	Medical
Obstructive	Surgical

Indirect-reacting bilirubin has its source in the breakdown of red blood cells in the bone marrow and reticuloendothelial system. A large proportion of this bilirubin passes through the liver cells, becomes direct-reacting bilirubin and is excreted in the bile. The intestinal bacteria then convert this bilirubin into stercobilinogen, some of which is reabsorbed and reexcreted in the bile, and a small amount is found in the urine as urinary urobilinogen. The indirect-reacting bilirubin which has not passed through liver cells cannot be excreted in the urine.

In hemolytic jaundice, the increased production of bilirubin from red blood cell destruction results in an increase of stercobilinogen in the gut. In the blood stream, also, there is increased urobilinogen which cannot be entirely excreted by the liver cells and therefore appears as a high urinary

urobilinogen. There is no increase in direct-reacting bilirubin, and therefore no bilirubin in the urine, but there is an increase of urobilinogen both in the stool and in the urine.

On the other hand, if there is complete obstruction of the bile ducts outside the liver, there can be no urobilinogen formation in the bowel and therefore no excess in the urine. Some of the bilirubin in the blood stream has, however, passed through the liver cells and returned to the blood stream. This is the direct-reacting bilirubin which can appear in the urine. Obstructive jaundice, therefore, results in the appearance of bilirubin in the urine and in the disappearance of urobilinogen both from the stool and from the urine.

Hepatocellular jaundice frequently results in a mixed type of picture. Swelling of the liver cells will cause incomplete obstruction initially, with regurgitation of some direct-reacting bilirubin and its excretion in the urine. At the same time, the liver cell dysfunction prevents adequate reexcretion of urobilinogen from the blood stream, and excess urobilinogen therefore appears in the urine. At a later stage, liver cell swelling causes complete obstruction, and the picture becomes identical with that which is observed in extrahepatic obstruction.

As liver-cell swelling diminishes towards the end of the disease, urobilinogen again appears in the urine—an indication that may be clinically useful in showing that recovery is just around the corner.

In describing these changes, I have used the terms *direct-* and *indirect-reacting bilirubin*. They relate to the color change which occurs on the addition of Ehrlich's diazo reagent in the van den Berg reaction. From recent work, it seems likely that only the indirect form is, in fact, bilirubin, and that the direct-reacting form is a different pigment. Since this other pigment has not yet been given a name, it is still referred to as "direct-reacting" or "one-minute" bilirubin. There is still no good explanation of why the direct-reacting pigment can be excreted in the urine, though true bilirubin cannot. It has been clearly shown that the difference does not depend upon the attachment of the indirect form to protein molecules as was at one time believed.

CLINICAL DIAGNOSIS

The characteristic clinical features of these three types of jaundice are adequate to distinguish them, one from another, in the vast majority of patients. The biochemical liver-function tests are used merely to supply confirmatory evidence.

In hemolytic jaundice (Table 2) there are many causes, most of them rare or very rare. Suspicion of this type of jaundice is aroused by the presence of an accompanying anemia and the presence of large amounts of urobilinogen both in the stool and in the urine. The individual causes are also frequently associated with characteristic features.

TABLE 2
CAUSES OF HEMOLYTIC JAUNDICE

Rare	*Very Rare*
1. Hereditary spherocytosis	5. Idiopathic acquired hemolytic anemia
2. Pernicious anemia	6. Chemicals
3. Secondary acquired hemolytic anemia	a. Benzene
a. Hodgkin's Disease	b. Phenylhydrazine
b. Leukemia	c. Lead
c. Carcinomatosis	d. Sulphonamides
d. Uremia	7. Paroxysmal hemoglobinuria
4. Infections	a. Nocturnal
a. Malaria	b. Cold
b. Septicemias	8. Sickle cell anemia
c. Virus infections	9. Hemolytic disease of the newborn

For example, hereditary spherocytosis is generally associated with a family history, or at least an individual history of recurrent jaundice. Generally, of course, there is an associated anemia and splenomegaly, and the diagnosis can be confirmed by the finding of increased fragility of the red cells together with the finding of small red blood cells which have a high mean cell volume and a high mean corpuscular hemoglobin concentration.

In acquired idiopathic hemolytic anemia, the history and physical examination are less helpful. But anemia associated with jaundice and excess urobilinogen in the stools and urine should lead one to do a Coombe's test and a reticulocyte count.

The jaundice of pernicious anemia is generally slight and is associated with severe anemia, glossitis, neurologic changes, and the appropriate peripheral blood and bone-marrow picture.

The secondary types of hemolytic anemia, whether secondary to neoplastic disease or to infection, are generally associated with advanced stages of the disease and are not hard to recognize. An exception is the hemolytic anemia which is sometimes a sequel to virus pneumonia. It may appear only after the initial infection has cleared up.

One will not miss poisoning by one of the chemicals listed if he keeps in mind the possibility of a toxic hemolytic process. In obscure cases, the paroxysmal hemoglobinurias and sickle-cell anemia may provide a possible explanation.

Recognition of the parenchymal type of jaundice and its distinction from extrahepatic obstruction can be, and often is, much the most difficult diagnostic problem. This is particularly true if the patient is first seen late in the disease, when swollen liver cells have caused secondary intrahepatic obstruction, or when long-standing extrahepatic obstruction may have led to secondary degeneration of liver cells. In this decision, however, the clinical features are of the utmost importance.

In most cases of parenchymal jaundice (Table 3), an infectious agent is responsible, and by far the commonest of these is, of course, virus hepatitis. It may take the form of infectious hepatitis or homologous serum jaundice. In the former,

TABLE 3

CAUSES OF PARENCHYMATOUS JAUNDICE

Infectious agents	Metabolic
Viral: Infectious hepatitis	Hemochromatosis
Hemologous serum hepatitis	Amyloid disease
Yellow fever	Nutritional
Infectious mononucleosis	Portal cirrhosis
Spirochetal: Weil's disease	Fatty liver
Syphilis	Kwashiorkor
Bacterial: Liver abscess	Neoplastic
Tuberculosis	Primary } Carcinoma
Brucellosis	Secondary } of liver
Protozoal: Amebic hepatitis	

there is frequently a history of infection of other members of the community, whereas in the latter a history will be obtained of the parenteral administration of drugs, blood or plasma some three months before the onset of jaundice. Otherwise these two diseases run an identical clinical and pathologic course, consisting of early anorexia and fever, both of which generally subside within about a week, but by that time the jaundice is well developed. The jaundice generally rises steadily to a peak, and then slowly diminishes. The urine shows the changes already outlined, namely the early presence of bilirubin and excess urobilinogen, later bilirubin only with acholic stools, and finally a return of excess urobilinogen to the urine as the jaundice fades and as the bilirubin disappears from the urine.

TABLE 4

CHEMICAL SUBSTANCES TOXIC TO LIVER CELLS

Group	*Substance*	*Source*
Chlorinated Hydrocarbons	Carbon tetrachloride	Industrial solvent
	Chloroform	Anesthetic
	Ethyl Chloride	Anesthetic
	Tetrachlorethane	Munition factories
	Methyl Chloride	Refrigerator gas
	DDT	Insecticide
Naphthalene		Moth balls
Benzene Derivatives	Trinitrotoluene	Munition factories
	Toluene	Aircraft
	Dinitrophenol	Slimming preparations
Muscarine		Mushrooms
Yellow Phosphorus		Fireworks, insecticides

Other much less common infectious agents which must be considered are infectious mononucleosis, yellow fever, Weil's disease, syphilis, tuberculosis, brucellosis and amebiasis. The latter two are not rare diseases, but are rare causes of jaundice.

The toxic chemical agents which can cause hepatocellular jaundice are listed in Table 4. Though they are rarely encountered, the possibility that one of them may be present should not be overlooked.

TABLE 5

DRUGS TOXIC TO THE LIVER

Cinchophen	Thiouracil drugs
Para-amino salicylic acid	Chlorpromazine (Thorazine)
Dilantin	Organic arsenicals
Methyl testosterone	

Table 5 gives a list of drugs that may cause liver damage. The most vicious of them, Cinchophen, frequently causes a severe and rapidly fatal hepatic necrosis. Methyltestosterone, thiouracil, chlorpromazine and organic arsenicals cause an interesting type of jaundice that clinically is extremely hard to distinguish from extrahepatic obstruction. Frequently, however, the patients are unexpectedly well for the degree of jaundice that they show. There appears to be little or no relationship between the dosage of the drug and the onset of jaundice, and occasionally one may find eosinophilia both of the peripheral blood and the cellular infiltrate in the liver. It is believed, therefore, that this type of jaundice may represent an allergic reaction to the drug. This reaction causes changes primarily in the minute cholangioles of the liver, and only secondarily in the liver cells.

Jaundice can occur in a number of metabolic diseases of which perhaps the least rare are hemachromatosis and amyloidosis. These produce a picture closely resembling cirrhosis of the liver, and the clinical features are frequently indistinguishable. Biopsy alone may reveal the true diagnosis.

Alcohol has not been mentioned among the substances which have a toxic effect on liver cells, since we have no proof that such is the case. It is generally believed, however, that portal cirrhosis in the alcoholic is not entirely attributable to nutritional deficiency, and that alcohol has, in fact, a toxic action on the liver. When jaundice occurs in association with portal cirrhosis or other forms of metabolic disease, or in infective liver disease of unusually long duration, clinical signs begin to appear which present a picture diagnostic of liver-cell damage.

Frequently the first of these signs to appear are arterial spider angiomata. These lesions are usually distributed over the face, neck, shoulders and arms. They are rarely seen below the nipple level. They fade easily on pressure, and the small vessels can be seen to fill from the center outwards. By adjusting the degree of pressure, one can demonstrate pulsation. These maneuvers show clearly the arterial nature of the lesions.

Another physical sign which is very suggestive of liver disease is erythema of the palms of the hands. The erythema is typically distributed over the skin of the thenar and hypothenar eminences, on the spaces between the metacarpal phalangeal joints and on the fingertips. On elevation of the hands, pallor develops in the centers of the palms, but the erythematous areas remain.

When the underlying hepatocellular disease is particularly severe, there may be other more obvious physical signs. The patient shown in Figure 1 demonstrates the ascites, with distended veins over the abdomen, the lack of body hair, and the testicular atrophy which are all characteristic of advanced portal cirrhosis. He developed jaundice

as a result of gross fatty infiltration of the liver cells superimposed on severe portal cirrhosis.

Infrared photography demonstrates well the gross venous distention over the chest and abdomen which is much more characteristic of this disease than is the caput Medusae around the umbilicus which is mentioned in many textbooks.

In obstructive jaundice—that is, jaundice due to extrahepatic obstruction of the bile ducts—the history and physical examination are no less important in making a positive diagnosis than they are in diagnosing hepatocellular jaundice (Table 6). Few patients having a calculus obstructing the

TABLE 6

CAUSES OF OBSTRUCTIVE JAUNDICE

Calculi	Lymph Nodes
Biliary	Metastatic carcinoma
Pancreatic	Hodgkin's disease
	Lymphosarcoma
	Leukemia
Neoplasm	Tuberculosis
Gall bladder	Syphilis
Cystic duct	
Common bile duct	Edema and Fibrosis
Papilla of Vater	Inflammatory
Duodenum	Postoperative
Pancreas	
Liver	Parasites
	Ascaris
	Echinococcus

common bile duct are without a previous history of gallbladder trouble. There can be little doubt about the diagnosis if there is a history of previous attacks of colicky abdominal pain associated with fever, jaundice, dark urine and pale stools. In those patients in whom obstruction is caused by a neoplasm of the pancreas or duodenum, there is a history of progressive, relentless jaundice associated with weight loss and frequently a constant, boring epigastric pain. The old dictum that carcinomatous jaundice is painless is a myth, for the majority of these patients have very troublesome pain. Likewise, Courvoisier's law that the gallbladder enlarges only if the obstruction is malignant is by no means reliable. Though the finding of a palpable gallbladder is of great help in the recognition of the surgical type of jaundice, it doesn't help one to distinguish between the various causes of this condition that are listed in the table.

About the most constant and helpful symptom of obstructive jaundice is severe and intractible pruritus. In cases of infective hepatitis, pruritus is common, but it is seldom severe, and seldom lasts for more than a few days. In extrahepatic obstruction, the pruritus is severe and increases with the degree of jaundice. It is interesting, however, that terminally the pruritus usually disappears when liver function begins to fail. This phenomenon has led to the conclusion that some substance formed or modified by the liver cells causes the pruritus.

Macroscopic inspection of the stools at frequent intervals and repeated urine tests are too often

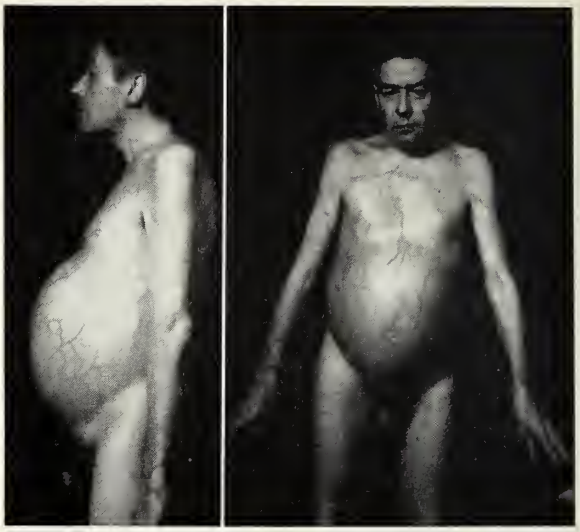


Figure 1

forgotten. It is obvious that complete obstruction cannot be present unless the urine contains bilirubin and no urobilinogen, and unless there is no urobilinogen present in the stools.

LABORATORY PROCEDURES

I do not intend to use a great deal of space in discussing the biochemical tests of liver function, for I feel that they make considerably less of a contribution to a differential diagnosis than do the clinical features that I have described. Their use is most important in confirmation of clinical impressions, and at times they are essential to the making of a decision between medical and surgical therapy. They are of little value unless several tests are used on each case. On the other hand, far more information will be obtained from a few tests used with a complete understanding of their significance, than from a large number used without an appreciation of their full significance.

The tests most commonly used are listed in Table 7. Apart from the inspection of feces and the urine tests that I have mentioned, the majority of them depend on alterations in the protein constituents of the plasma. Although the serum albumin is usually lowered in chronic liver disease, such a finding is nonspecific, for it can also be encountered in malnutrition. Only if the globulin is raised above normal levels is the test indicative of actual liver damage. A knowledge of the absolute values for each of these proteins is therefore of more clinical value than is a statement of the albumin-globulin ratio.

Elevation of the gamma globulin fraction is responsible for producing a positive zinc sulfate turbidity test and is indicative of liver-cell dysfunction. The zinc sulphate is more constantly abnormal in virus hepatitis than any other test. The thymol turbidity, on the other hand, is influenced

by lipoprotein levels in the blood, and since these lipoprotein levels are raised in long-standing obstructive jaundice, very high values may be obtained in this condition. The cephalin cholesterol flocculation test is rather unreliable in a chronic liver disease such as cirrhosis, and may be normal even when there is severe liver damage.

The alkaline phosphatase is of value in differentiating extrahepatic obstruction, and values in excess of 10 Bodansky units are usual. One exception is the jaundice caused by Thorazine, when very high phosphatase levels may occur even though the obstruction is entirely within the liver tissue.

The excretion of BSP is of limited value in the differential diagnosis of jaundice, since excretion will be impaired when the total serum bilirubin is raised above 2.5 mg. per cent, whether from extrahepatic obstruction or from hepatocellular disease.

Since both parenchymal and obstructive jaundice usually cause a rise in both fractions of bilirubin, differential values for the one-minute and 30-minute bilirubin are usually of little assistance.

In selected cases where the diagnosis is difficult, a needle biopsy of the liver may be of great assistance. If the proper precautions against bleeding are taken, there is little danger attached to the procedure. The greatest difficulty lies in the interpretation of the pathologic specimens, for they may mislead even the most experienced pathologists. Where malignant disease is suspected, we have been obtaining our biopsies by peritoneoscopy throughout the last two years.

MEDICAL MANAGEMENT

Now let me say a very few words about the medical treatment of those cases in whom it has been decided that there is no indication for surgery. Recent work has indicated that there was little foundation in fact for some of our previous ideas about dietary therapy, particularly for the use of high-protein diets. Although adequate protein is essential to normal metabolism in the liver, and although it aids in the recovery of the less severely sick livers, it may actually be harmful when damage is widespread and severe. Protein and certain protein-breakdown products, especially ones such as methionine which contain ammonia, cannot adequately be metabolized in severe liver disease and may precipitate neurologic complications. In many cases, this may lead to hepatic coma and death.

In our patients with moderate or mild liver disease, we now prescribe a diet containing a liberal supply of calories in the form of carbohydrate, and up to about 100 Gm. of protein. Where liver failure seems to be imminent, protein intake is restricted to 40 Gm. per day, or is eliminated entirely for a time.

Some other therapeutic measures which may be equally disastrous in precipitating hepatic coma are paracentesis, administration of ammonium chloride as a diuretic, and the administration of sedatives—particularly the barbiturates, morphia and Demerol. Any operative procedure, however minimal, may have serious or even fatal consequences in such patients. Intercurrent infection and bleeding from esophageal varices are also common precipitating factors in hepatic coma.

The onset of hepatic coma may be heralded by mental confusion and antisocial behavior. Later, the patient usually exhibits a particularly characteristic physical sign, the significance of which has not always been fully appreciated. This physical sign is the flapping tremor which can be elicited by having the patient extend his arms laterally or forward. Irregular gross jerking movements of the fingers, hands and sometimes the whole arms will be noted. The tremor may also affect the eyelids, the head or even the whole body. Neurologic examination will often reveal exaggerated reflexes, knee and ankle clonus and positive Babinski reflexes. This condition is often reversible, and will more or less completely disappear following the elimination of protein from the diet, intravenous infusion of hypertonic dextrose and careful regulation of electrolyte balance.

SUMMARY

1. Classification of jaundice into medical and surgical types has the advantage of simplicity, and it emphasizes the importance of an accurate diagnosis.

TABLE 7
SUGGESTED TESTS OF LIVER FUNCTION

	Hemolytic	*Hepatocellular*	*Obstructive*
Acholic stools	..	+ or —	+++
Urine bilirubin	..	+ or —	+++
Urine urobilinogen	++	++	..
Alkaline phosphatase	..	4 to 10	Over 10
Elevated serum globulin	..	++	Late +
Elevated zinc sulfate turb.	..	++	..
Elevated thymol turbidity	..	++	Late ++++
Retention of bromsulphalein	Less than 5%	More than 5%	More than 5%
Differential serum bilirubin	30′ raised	1′ and 30′ raised	1′ and 30′ raised
Cephalin-cholesterol flocculation test	..	++ to ++++	Late ++

2. Clinical features are of paramount importance, and biochemical tests are most useful as a means of confirming the diagnosis.

3. Increasing knowledge of the biochemical functions of the liver has led to changes in treatment of hepatocellular jaundice.

Sound Film Recording of Psychoanalytic Therapy

A Therapist's Experiences and Reactions

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FOR MANY YEARS, it has seemed to me that sound-film recording equipment offers unique opportunities for teaching, self-evaluation and research, and particularly for an objective evaluation of the process in psychoanalytic therapy. These potential uses were first called to my attention in 1933, when Mr. Earl F. Zinn, with whom I then began a personal psychoanalysis, was making dictaphone recordings of psychoanalytic sessions with a schizophrenic patient at Worcester (Mass.) State Hospital. The data so gathered was transcribed, and at the termination of the patient's analysis, the transcript had become of formidable size. When I had an opportunity to read parts of it, a few years later, it interested me, especially because I had known the patient. But the potentialities of the original sound recordings in the teaching of interviewing and psychotherapy impressed me most forcibly, and subsequently, in fact, Mr. Zinn demonstrated those possibilities.

From that time until comparatively recently, though I retained my interest in recording initial interviews and psychotherapeutic sessions and in making observations through a one-way window, the requisite equipment was unavailable to me. With a view to studying them at some future time, I kept voluminous notes of therapeutic sessions with patients in both psychoanalysis and what may be called psychoanalytically-oriented psychotherapy. But as material from which to learn something of the therapeutic process, I realized that those notes were poor substitutes for sound recordings, especially since the technics for preserving conversations, complete with nuances of intonation, were being rapidly and steadily improved. Sound-film, of course, offered still greater opportunities.

Just before this country's entry in World War II, there was a brief period when it seemed possible that sound-film equipment might become available to me for my purpose, but it was not until after the close of hostilities that I obtained the use even of a room with a one-way window and sound microphone. Several years later, when David Shakow, Ph.D., came to the University of Illinois College of Medicine as professor of psychology and director of the Psychological Division of the Department of Psychiatry, my interest in the possibilities of using sound-film for teaching interviewing and psychotherapy to medical students, interns and residents was revived. Like me, he had been introduced to the idea by Mr. Zinn, and he was particularly attracted by the likelihood of its usefulness in the objective evaluation of the process in psychoanalytic therapy.

EQUIPMENT

With funds furnished by the institutions sponsoring the project (see footnote), a treatment room 19 ft. square was constructed and equipped with the special apparatus that was altogether essential. There is a plexiglass ceiling covering 50 eight-foot and 20 four-foot fluorescent tubes capable of giving 300-335 foot candles of light on the horizontal and 130 foot candles on the vertical. This is somewhat more than 5,000 watts of light. An air-conditioning unit helps to cool the room from the heat of these overhead lights. The noise level, which had been approximately 65 decibels, has been reduced to an average level of between 20 and 25 decibels. The room is equipped like a living room, rather than like an office, the fur-

Dr. Carmichael is a clinical professor of psychiatry at the University of Illinois College of Medicine. He reports upon studies in which Morris Sklansky, M.D., Leon Bernstein, M.D., Joel S. Handler, M.D., David Shakow, Ph.D., Rae Shifrin Sternberg, Ph.D., Reuben H. Segel, Ph.D., and Jean P. Chapman, M.A. collaborated with him. The project, entitled "Analysis of the Factors Involved in the Psychoanalytic Therapy Process: Preliminary Studies," has been supported by research grants M-637 from the National Institute of Mental Health of the U.S.P.H.S., the Department of Public Welfare of the State of Illinois, and the University of Illinois College of Medicine.

niture making it appropriate for individual interviews, group therapy or group conferences. One wall of the room has a floor-to-ceiling decorative panel that has parts which can be removed to provide a camera aperture, and there are two one-way-vision screens between the treatment room and the adjoining camera room for use in direct viewing. Three microphones are installed to feed the optical sound track of the camera and the binaural tape recorder. Our 16 mm. camera has been modified to accommodate a single 50-minute film run of 2,000 feet.

THE PROJECT

Since 1953 our group has been using the above-described facilities in making pilot studies in preparation for an intensive study of the process of psychoanalytic therapy. Eventually, we plan to make sound-motion pictures of the whole analysis of a single patient, with his and his therapist's knowledge and consent.

In the major project, when it gets under way, it is our intention to have successive sections of the sound film analyzed by five or six experts, some of them psychoanalysts and others of them representatives of other theoretical points of view in psychotherapy and experimental psychology. First, they are to be asked to do the analysis, each by himself. Later, after a certain period, they are to be asked to do it together.

It is felt that the therapist whose series of interviews has been filmed must be considered an integral part of the experimental situation, and for that reason may not be allowed to participate in the analysis of the data.

The work is to have two major focuses: (1) the analysis of the psychoanalytic therapy process, and (2) the analysis of the process by which either a single conceptual formulation or several clearly differentiated conceptual formulations are arrived at by a number of people having, at the outset, varying degrees of difference in their theoretical frames of reference.[1] This plan was described in considerable detail by Shakow in the 1948 Round Table on the "Objective Evaluation of Psychotherapy" published in the American Journal of Orthopsychiatry in 1949.

It is our assumption that the sound-film method will make available a naturalistic representation of psychotherapy and psychoanalytic therapy. We feel that the advantages of film records are clear. They are permanent, they can be reviewed at any time, and they are not dependent upon the original investigator for reliability of interpretation. They are a faithful and unbiased representation of the original events. Moreover, they afford access to the gestures, facial expressions, and bodily movements of patient and therapist. Such non-verbal, expressive data have not heretofore been available for study.

But despite these advantages, there are a number of questions that may be raised. First, is the technic valuable enough to warrant the expense that it necessitates? Before embarking upon the filming of a complete series of interviews, it is essential for us to demonstrate that the film will be worth the current minimal cost of $140 per interview for film and processing only. Second, are sound-film movies of the psychotherapeutic process representative of the real thing? In other words, does the invasion of privacy (by recording and observation) distort the behavior of patient and therapist? Third, what evidence is there that the visual medium helps one understand the evidence that can be preserved by sound recordings alone? Are the non-verbal clues reliable? Do they provide information beyond that which is to be derived from language and tonal inflection? Fourth, can one avoid the psychological effect of being overwhelmed by the sheer quantity of the data that this method affords? Some studies have seemed to support the view that increasing amounts of information served more to confound than to enlighten the individual clinician. We think such conclusions arise from faulty conceptions of how a clinician learns, and we think experiments can be designed to demonstrate that under proper conditions he can utilize all of the increments of information. Fifth, can one retain the richness of the original data while he pursues a systematic inquiry? We think that it is possible, if one knows what he is looking for and can utilize appropriate methods for analyzing these kinds of data.

DISTORTIONS INTRODUCED BY THE INVASION OF PRIVACY

I do not intend to give a detailed account of our attempts to find answers to all of these questions, but I do wish to enlarge upon certain aspects of the studies we have made in trying to answer the second of them.

It has been asserted that the introduction of a third person into the psychotherapeutic setting markedly changes the quality of the experience both for the patient and for the therapist. Psychoanalysts, quoting Freud as authority, have been particularly insistent upon this point. Despite these objections, however, psychotherapists of various theoretical persuasions have been using magnetic tape recordings of psychotherapeutic interviews, in recent years, to provide themselves with materials for their research activities. But there are significant differences between sound recording and filming. Whereas tape recording is a push-button technic requiring the presence of no third party, a cameraman must be present when pictures are taken. There is little doubt that the camera operator's presence and the awareness, by both doctor and patient, that lasting visible images are being created do have some effect upon the therapeutic process. We have tried in three ways to determine the nature and magnitude of that ef-

fect: first, through direct inquiry of prospective patients and therapists after the filming; second, by asking patients and therapists what they think their reactions would be if they were to be subjected to such filming; and third, by noting the reactions of a wide segment of the general adult population to a projective cartoon series designed to tap feelings about being overheard and seen in vulnerable situations. The results obtained through these approaches will be reported in detail at another time.[1a]

We have obtained information on the reactions of the three therapists (L.B., R.S.S., and H.T.C.) who have been filmed during the pilot studies, by asking them to associate freely—i.e., to voice their thoughts as unreservedly as possible—to a tape recorder immediately after each filming session. All admitted to having felt an initial anxiety about being filmed. All commented subsequently upon their adaptation to the surroundings at later filmings. They seemed to feel more vulnerable to the consequences of being recorded than did the patients.

Most revealing is the experience of a therapist who had been recorded with patients on sound-film in a total of 26 interviews, and had been recorded on sound tape in an additional 30 sessions. There had been three series of interviews with three different patients: (1) a two-interview series with a patient in psychoanalytic therapy—one of them the 130th "hour," on January 30, 1954 (perhaps the first sound-film recording of a psychoanalytic interview), and the second in January, 1956, four months after the interruption of the psychoanalysis; (2) a five-interview series in the winter of 1955, beginning with the initial interview with a paranoid patient; and (3) a 19-interview series with a patient having a character neurosis, also beginning with the initial interview, in the spring and summer of 1955. (The 30 interviews recorded on tape were between the therapist and this third patient, the tape series starting where the film series ended. Thus 49 consecutive interviews had been recorded.)

The therapist reported having had some initial anxiety when he was filmed for the first time, but he said that his awareness of the situation lessened thereafter, until the series of 19 filmed interviews was well started. Then, after his relative freedom from anxiety and self-consciousness, he reported that anxiety recurred and became more intense than it had been initially. As he put it, he felt able to maintain himself in equanimity without undue strain or anxiety for a single interview or throughout a series of five interviews, or even six or more. It was when he thought of the effort he would have to exert to maintain this attitude throughout an indefinite series of recordings that he felt some dread of the never-ending exposure of himself and his technics. He later reported that these tensions subsided when he had become aware of them and had analyzed their probable origin.

We have studied the recordings of associations that the therapist made immediately after each of the 19 sound-film interviews. Some were made on sound tape in another room. Others were sound-film records made in the treatment room immediately following interviews, or were tape records made in the treatment room. Transcripts were made of all these recordings.

Six months later, the therapist was given an opportunity for the first time to look at and listen to the sound films of the alternate sessions from 1-19—i.e., those of the first, third, fifth, seventh, ninth, eleventh, thirteenth, fifteenth, seventeenth and nineteenth session, ten in all. Immediately after the film showings, he made recordings on sound tape of his impressions and associations regarding what he had just seen and heard of the patient and himself in the psychotherapeutic situation. Transcripts of these recordings were made available. Comparisons were made by the therapist and one of his co-workers, R.S.S., between the recordings (we call them "introspections") made immediately after the interviews and the recordings made six months later.

Ten categories were set up to assist in the comparison and rating: (1) the therapist's expressed degree of satisfaction with the interview; (2 and 3) his estimate of his and the patient's awareness of recording; (4) his evaluation of his own technic; (5) his evaluation of his and the patient's interaction; (6) his estimate of his own activity in the therapeutic interviews; (7) his estimate of his own and the patient's reactions to the physical setting; (8) his reaction to his own physical appearance; (9) his expressed attitudes toward the project; and (10) his estimate of the effect of such influences as his prevailing mood, attitude or physical state and the weather just before each interview. The ratings under these categories were done separately by the therapist and by his co-worker, first on the introspections done immediately following the filming and thereafter on the introspections done six months later. The two of them then compared notes to ascertain the degree of their agreement before they made their final ratings.

The therapist's reactions to the physical setting in which the interviews were filmed were limited to his experiencing some discomfort from heat and humidity towards the ends of the interviews. (The air conditioning had to be turned off just before the start of filming, for the noise of the unit would otherwise have been recorded on the sound track.)

The prevailing mood of the therapist just before each of the interviews was not rated as an important influence. Acceptance of responsibility as a therapist (physician) overshadowed personal

feelings. His positive stimuli were his anticipation of getting on with the project, a mood level of elation, and stimulation resulting from discussion with his colleagues and visitors. Negative stimuli were fatigue, hunger, hurry, hot weather and awareness of being a subject rather than an investigator in this phase of the research.

The therapist was sensitive to his physical appearance only at the beginning and at the end of the original series of introspections. When he saw himself six months later, he was much more concerned. Sixty per cent of the later comments were adverse, 35 per cent positive and 5 per cent neutral.

The therapist showed more concern about his role in the project at the time of the second series of introspections than at the first. His different position at the time of the second series probably accounts for that fact. Then he was no longer the therapist. He had distanced the original therapeutic situation and was observing it as an evaluator, critic and investigator trying to live up to the ideal of scientific objectivity. On the other hand, he expressed less concern about his colleagues' reactions to the project during the second series of introspections. By and large, his concern took the form of questioning certain aspects of his activity. When he expressed direct feelings about the project, they tended to be more positive than negative.

As recorded in the original introspections, the patient seemed to the therapist to have been largely unaware of the recording process. Six months later, the therapist saw more evidence of the patient's awareness of the filming, and so indicated in his introspections. He recalled, however, that he had thought at the times of the interviews that the patient was showing a good deal of awareness of the recording process. The accuracy of this latter evaluation was supported by the discussion we had had with the patient following the termination of the filming.

The therapist perceived the patient to be involved in the therapeutic process for the most part. On reviewing the films six months later, he expressed himself as seeing more evidence of resistance on the patient's part then he had seen at the time of the original filming.

The therapist was generally less satisfied with the interviews on reviewing them six months later. The variations in ratings were one or two points on a five-point scale. It is of interest that three points of agreement were noted—namely at the beginning of the psychotherapy; in the middle of the series (ninth interview); and towards the end of the filmed series (seventeenth interview). The reason for this agreement is not clear. It has been suggested that it may be that in the first, ninth and seventeenth interviews the therapist was trying to establish a definitely structured frame of reference in terms of factual data about the patient's then current reality situation—i.e., in the first interview, those surrounding the beginning of treatment; in the ninth interview, those having to do with the patient's plans for a long summer vacation; and in the seventeenth interview, those having to do with his departure for a three months' vacation and his plans for resuming interviews thereafter.

The therapist's critical attitude and his dissatisfaction with himself upon reviewing the film after an interval of six months were also shown in his evaluation of the technics he had utilized in the interviews studied. This dissatisfaction was carried over into his characterization of his level of activity in those interviews. Upon reviewing the films, he tended to consider himself as having been overly active, whereas in the first introspections, he had tended to look upon his level of activity as relatively passive.

The therapist's awareness of the recording procedure, he said, was more or less constant. As judged in the ratings of both introspections, the awareness-unawareness ratio was approximately two to one. The ratings of the intensity of awareness fluctuated from mild to strong, the former occurring somewhat more frequently. The therapist's awareness of the observers—i.e., the coworkers who managed the camera and the binaural tape recorder—was, he thought, less than his awareness of the implications of recording for a particular interview, or in regard to the aims of the project. There seemed to be a slight tendency towards a negative correlation between the intensity of the therapist's awareness of the recording and the degree of his satisfaction with the interview.

Some further comments on the typescripts of introspections might not be amiss. Those in the second series of introspections were on the whole somewhat longer than those recording the remarks of the therapist immediately after the filmings. The lengths of the typescripts varied from three typewritten pages to a little less than one typewritten page. The shortest was one containing the therapist's introspections on an occasion when he felt under pressure to get from the filming to a panel discussion in which he was expected to participate. We have been interested in noting the relative lack of comment in the introspections on the content of the psychotherapeutic interviews, or on the psychodynamics involved, or in directly relating an interview to the immediately preceding one.

Mention should probably be made of the therapist's awareness of and comments at the time of the filmings on his own probable exhibitionistic and voyeuristic trends, as well as on their background and meaning.

Difficulities in getting therapists to participate

I feel inclined at this point to make some remarks about the difficulties we encountered in

getting therapists to submit themselves to being filmed and recorded. The majority of those approached expressed interest in the project, but preferred to remain at a distance from it, expressing doubts about the validity with which the therapeutic process could be represented under such conditions. They hesitated or evaded, and failed to answer when asked if they would act as therapists with their patients in actual filming. They expressed a strong preference for being observers and evaluators, rather than exposing their own work to the criticism of others.

When we finally got to the point of needing a therapist and a patient for the purpose of testing the setting and equipment, we first approached members of the staff of the Department of Psychiatry. All were friendly and interested, but some begged off on the plea that they were too busy just then. Others said they would be willing to be filmed as soon as they could find suitable patients, but none of them ever seemed, simultaneously, to find the requisite time and a suitable patient. Finally, the psychoanalyst among the initial group of investigators was used for the first actual filming.

When the second series of filmings was to be undertaken, similar difficulties were encountered. Eventually, the one who volunteered and who was actually filmed, when a suitable patient had been found, was a former analyst and one of the investigators. It is assumed that this was why he consented to serve as a subject.

Still later, when no other therapist would serve for a filmed series of interviews, the investigator who had been filmed in the first actual series was used again. Up to date, he has been the only therapist used since the three-interview film series, although three younger psychoanalysts have now joined the project and are doing observational studies.

As has been reported in the literature, patients usually don't show resistance to being sound-recorded on tape or sound-film, whereas therapists almost all show great resistance and reluctance to having their methods and technics of psychotherapy made available for others to hear and look at. The danger of damage to their self-esteem seems to give them considerable anxiety. Yet as several of those reporting on sound recording have said—notably Gill, Newman and Redlich in their book THE INITIAL INTERVIEW IN PSYCHIATRIC PRACTICE[9]—the playback of sound records and sound films affords us a valuable method of improving our technic.

It may be narcissistic to let onself be recorded and sound-filmed while doing psychotherapy or psychoanalytic therapy. Or should one raise a question about its being masochistic? I believe, as Shakow has pointed out,[1] that courage is a very necessary attribute in a therapist, in addition to expertness in his particular kind of psychotherapy and in being a good representative of that kind of therapy.

PREVIOUS AND CONCURRENT EXPERIMENTATION

I shall not enter upon a thorough review of the literature about therapists' and patients' reactions to recordings. These deal with experience with sound-recording only. Most of them are listed in the bibliography at the end of this article.[2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13]

I know of no report on experiences in demonstrations of psychotherapy except that by Otto Fleischmann in the BULLETIN OF THE MENNINGER CLINIC, September, 1955,[11] and none of sound-films for study of process other than those of Carl Rogers.[12] Fleischmann conducted treatment of a patient before groups of psychiatric residents observing through a one-way mirror, and I refer you to his article for a discussion of the details of his his own, his patient's and his observers' reactions. In a conversation,[13] Dr. Nathaniel Apter informed me that he had been recorded on sound-film in a series of 20 interviews with a patient. He commented that he felt somewhat uneasy at the time, for the patient did not seem to realize that he was being directly observed through a one-way mirror.

At about the time we were finishing our rating of the first and second series of introspections reported above, we learned that what may be called a project parallel to ours at the National Institute of Mental Health was tooled up and about ready to begin filming psychotherapeutic interviews.

Finally, a word or two on the use to which sound films are already being put. They are already being studied by experts other than the therapist who appeared in them, and a variety of methods are being used in order to ascertain the nature of the process that goes on during psychoanalytic therapy. It is hoped that adequate methods will be devised for handling the enormous mass of data which film recording provides. There are some indications, even at this preliminary phase of our investigations, that these hopes will be realized. Reports of this aspect of the project will be released elsewhere at a later time by project members.

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State University of Iowa College of Medicine

Clinical Pathologic Conference

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SUMMARY OF CLINICAL FINDINGS

A 43-YEAR-OLD WHITE housewife was admitted to University Hospitals in a comatose state that her husband said had started at 5:00 a.m. on that same day. The patient awakened, complained of a severe headache, and then quickly lost awareness of her surroundings. She vomited undigested food and made random, flinging motions with her right arm. Her left arm was limp. After this episode, she seemed confused and at times disoriented, but during her more lucid periods she complained of severe headache and nausea.

The patient had not been well for a year and a half before her admission. At the start of her illness, she had suddenly collapsed, experiencing severe headache, abdominal pain, and partial paralysis of the left side of her face and her left arm. After a week of bed rest, she had completely regained her motor functions. At the time, the family was told that this episode was either a "stroke" or an attack of poliomyelitis. Following her recovery from the paralysis she became annoyed very easily, and she lost interest in her family and home.

One year before her admission to this hospital, she had complained of dimness of her vision in her left eye. At about the same time, severe throbbing headaches had occurred in the right frontal area and had radiated to the occiput. These had recurred with increasing frequency, and were especially common at night. On several occasions the patient had fallen out of bed and had staggered when she was awakened. There was no vomiting, or loss of bladder or bowel control. During this period, the patient had consulted numerous physicians and had received many different injections and medications, but she had seemed to get most relief from her headaches by drinking alcohol with Coca-Cola.

Past history. Sixteen years before her admission here, the patient had been injured in an automobile accident. She had been unconscious for 12 hours and had suffered a laceration of the scalp over the occipital area, fractures of three ribs, wrist and ankle, and loss of hearing on the left. Five years later, some glass was removed from her scalp wound. A cholecystectomy and an appendectomy had been performed eight years before her admission, and a year afterward she had undergone cesarean section and tubal ligation.

Physical examination. The patient was obese and well developed, and she could lie flat in bed without respiratory distress. She answered questions poorly and was obviously disoriented. Her neck was not stiff, but passive movement produced violent headaches. Her blood pressure was 140/90 mm. Hg., her pulse rate was 72 beats per minute, and her respirations were 20 per minute. Her heart and lungs were normal. Her pupils were equal, but the vertical diameters were longer than the horizontal, and they responded poorly to light. The fundi were normal, and the rotation of the eyes was normal. There was left homonymous hemianopsia. Tests for hearing revealed an impairment of air conduction bilaterally, but more severe on the left. Other cranial nerves seemed normal. The deep reflexes were equal but diminished. Plantar reflexes were normal.

Laboratory findings. The urinalysis was negative. The hemoglobin and the red blood cell count were normal. The white blood cell count was 25,750 per cubic millimeter, and the differential showed 79 per cent polymorphonuclears, 17 per cent lymphocites and 4 per cent monocytes. The blood sugar was 265 mg. per cent, the creatinine 1.2 mg. per cent, and the blood urea nitrogen 9 mg. per cent. Serologic tests for syphilis were negative, and x-ray films of the skull and chest were normal.

Course in the hospital. On the second hospital day, the patient became comatose. Her respirations were deep, sonorous and varying in number between 6 and 14 per minute. Her pupils became pinpoints, and corneal reflexes were absent. The patient was totally flaccid. The blood pressure was 194/130 mm. Hg. A lumbar puncture was done. Later in the day, respirations stopped, and artificial respiration was instituted with a portable respirator. Her blood pressure continued to fall until it was imperceptible. Blanching of the skin returned to normal in five seconds for the next 36 hours, and

then this sign of life ceased. The patient was pronounced dead at 5:00 p.m. on her third hospital day.

CLINICAL DISCUSSION

Dr. Paul M. Seebohm, Internal Medicine: Dr. Van Allen will discuss this afternoon's case on the basis of the protocol, together with some additional information that I can give him if he asks for it. Because the protocol is not entirely accurate in saying that the x-rays were normal, Dr. Lodwick will comment on them. And we shall also reveal the lumbar-puncture findings at the appropriate time in his discussion.

Dr. Maurice W. Van Allen, Neurology: This middle-aged woman experienced abrupt onset of headaches and left hemiparesis a year and a half before her death. There was early improvement, with residua. Six months later, blurring of vision in her left eye appeared, possibly marking the onset of hemianopsia. Persistent throbbing, right-sided, nocturnal headaches continued until the day of her admission to this hospital, when severe headache, vomiting, coma and left hemiparesis indicated the seriousness of the long-standing neurologic symptoms. Consciousness returned at least partially, but coma and death followed within 72 hours. Events after the first day were typical of brain-stem involvement due to shift, compression, ischemia, hemorrhage or meningoencephalitis, and contribute little to the diagnosis. The history of the patient's final illness seems to be that of a progressive lesion of the right hemisphere. The pathologic process was such that sudden loss of brain function took place on two occasions. Assuming that the 1½-year history portrays no more than a single, more or less localized disease process, we must determine what lesion could most likely produce the course of events that has been narrated.

We must first consider a neoplasm of the right hemisphere as the lesion most likely to cause a progressive loss of brain function associated with headache, and then to cause death, following signs of brain-stem compression. We know that hemorrhage within a tumor may cause sudden headache and focal signs, with remission a possibility. Usually, such tumors are malignant, and it would be a bit unusual for hemorrhage to take place in a tumor as long as 18 months before the tumor caused death. If the first episode were due to hemorrhage in the tumor, one wonders whether the final episode were due to this as well, or whether it was due simply to a sudden swelling of the brain and vascular tumor alike. One point of interest is that on the day of the patient's admission there is no record or anyone's having observed left hemiparesis, despite the fact that her history would have made such a development probable. Was the presumed hemiparesis no more than transient? If so we must then wonder whether the intracerebral mass itself suddenly increased in size, or whether there was an associated extracerebral process of equal importance—that is, an intraventricular or subarachnoid hemorrhage or infection. To state the problem differently, one might say that sudden and fatal enlargement of an intracerebral mass would not likely be associated with only transient loss of motor function in the involved hemisphere.

We cannot exclude neoplasm with hemorrhage as the responsible lesion in this case, but before passing on to other points, I should mention the possibility that the episodes of collapse or loss of consciousness, with transient loss of neurologic function, might be explained on the basis of convulsions, with post-ictal paralysis. The protocol indicates that these episodes were probably not convulsive, but I make this point because an epileptic seizure may not infrequently be interpreted as a stroke.

Our next diagnostic possibility is an aneurysm of the middle cerebral artery or angiomatous malformation with early subarachnoid hemorrhage, intracerebral hematoma and, finally, recurrent, fatal intracerebral and subarachnoid hemorrhage. There is nothing in the protocol that is inconsistent with this pathogenic process, if we assume that an intracerebral hematoma or expanding malformation could be responsible for a year of headaches, staggering, visual loss and mental changes. Stiff neck is often absent in acute subarachnoid hemorrhage, and the white blood count is often increased—frequently with a preponderance of polymorphonuclears. Blood glucose, of course, may be elevated in many different acute intracranial processes Rather uncommonly, a spontaneous subarachnoid hemorrhage may result in a subdural hematoma, and it in turn plays the role of an expanding intracranial mass.

We cannot completely escape the rather interesting past medical history of this patient. Sixteen years before her death, this woman had suffered a significant injury to her head and, possibly, a basal skull fracture. The scalp had been lacerated, and the extraction of foreign bodies from the wound five years later suggests the possibility of sepsis. Could she have harbored a brain abscess secondary to the complications of trauma to the base of the vault of the skull? Cerebral abscesses, after being latent for many years, may suddenly produce local swelling and encephalitis. It is conceivable that this process may have been present in this instance, and that the final episode was due to spreading encephalitis and rupture of the abscess into the ventricle or subarachnoid space.

The first episode in the patient's fatal illness could have been due to cerebral ischemia, of whatever cause. Indeed this first episode, with its time relationships, presents one of the chief problems in this case. Primary occlusive vascular disease must be considered whenever acute loss of brain function takes place, regardless of whether or not a subsequent recovery of function occurs. Several fea-

tures of this case, however, are inconsistent with such a diagnosis. Persistent severe headache, progressive course and lack of evidence of generalized vascular or renal disease seem to exclude both arteriosclerotic and hypertensive vascular syndromes. No evidence is presented to indicate the presence of arteritis. Chronic low-grade meningoencephalitis, such as that produced by torula, might have caused a prolonged course, with remissions and focal signs. There is no history of fever. The first episode is hardly in keeping with such a disorder, and the patient could not be expected to be obese after 18 months of such infection. Syphilis of the nervous system is similarly debilitating, and one might expect more devastation if the process—either paresis or meningovascular lues—had been active for this period of time. In addition, the blood serology would most likely be positive in the face of active progress of the disease.

I tentatively favor one of the following three diagnoses: (1) cerebral tumor, with hemorrhage; (2) vascular anomaly or aneurysm, with intracerebral hematoma and subarachnoid hemorrhage; or (3) cerebral abscess, with ventriculitis or meningitis. The localization of a mass lesion, if present, would most likely be right-temporal or fronta-temporal. I make that presumption because of the association between the weakness of the patient's left face and arm and the homonymous hemianopsia.

Now there are several questions I'd like to ask on points that are not covered in the protocol. First, was there fever other than in the terminal stage?

Dr. Seebohm: No fever.

Dr. Van Allen: Was loss of hearing associated with evidence of recent or remote ear infection?

Dr. Seebohm: I think the hearing loss dated back to the automobile accident. There was no ear infection.

Dr. Van Allen: Was left hemiplegia or hemiparesis noted at the time of the patient's examination here?

Dr. Seebohm: No.

Dr. Van Allen: Now may we see the x-rays? In particular, I should like to know about the pineal. Was it in its normal location, or was it just normally absent?

Dr. Gwilym S. Lodwick, Radiology: The skull was not reported as being entirely normal. One small deviation from normal consisted of a small linear fleck of calcium situated vertically above the anterior clinoid process, close to the mid-line. We saw scattered calcification in the posterior part of the brain. This appeared to be a normal calcification in the choroid plexas, and in addition, I believe, the pineal was calcified faintly. We saw no evidence of pineal displacement. There was, however, one finding which was not mentioned in the original report. On close examination, it was apparent that the left anterior clinoid process was eroded. It was decidedly shorter than the right one. This sort of change usually requires a long time to develop.

Dr. Van Allen: Was it altogether clear that the pineal body had not been displaced?

Dr. Lodwick: I don't believe that it had been displaced.

Dr. Van Allen: Can we now have a review of the lumbar-puncture findings?

Dr. Seebohm: The lumbar puncture was reported as grossly bloody, but there was no amplification or interpretation of that finding. That is to say, the examiner did not offer an opinion as to whether the bloodiness was traumatic or due to bleeding into the subarachnoid space.

Dr. Van Allen: Under such circumstances, I think I would favor the possibility of an aneurysm or a vascular anomaly with bleeding, since intracranial tumors which bleed into the subarachnoid space are considerably less common than are aneurysms and vascular malformations.

Dr. Jack M. Layton, Pathology: The most striking finding at autopsy was a ruptured arterial aneurysm, 3 x 3 x 2 cm., involving the junction of the right internal carotid artery with the posterior communicating artery. There was diffuse subarachnoid hemorrhage over the base of the cerebrum and cerebellum, around the brain stem and down around the cervical spinal cord. There was also intraventricular hemorrhage. A severe malacia involved the basal regions of the cerebrum, and particularly the temporal lobe on the right side. A lesser degree of malacia involved the basal area on the left.

Rupture had occurred on the inferior surface of the aneurysm. Brain tissue directly adjacent to the aneurysm was necrotic, and brain tissue between the superior surface of the sac and the lateral ventricle was extremely soft. The aneurysm had compressed the optic chiasm and the right optic tract.

In addition, there was massive pulmonary collapse bilaterally, only the left upper lobe being ventilated to any considerable degree. The heart was slightly enlarged, and there were areas of old and new ischemic necrosis in it. A few emboli of thrombotic material were present in the pulmonary arteries. Tuberculoid lesions were encountered in the lungs and spleen, but their origin remained undetermined, for the special stains for microbiologic agents were all negative. The kidneys showed no congenital anomaly, but the major pancreatic ducts showed cystic lesions or hamartomatous lesions with one might call cystadenomas. These may have some association with the aneurysms, as did the polycystic kidneys that Dr. Sahs reported some years ago. Multiple abdominal adhesions of considerable severity where undoubtedly related to the previous surgical procedures.

Dr. Seebohm: According to the protocol, this patient had two acute episodes, one at the time of her admission and the other a year and a half earlier. Also, you will note in the protocol that there was

an interval during which the patient was suffering from chronic complaints consisting mainly of headaches. I should like to ask Dr. Sahs to tell us what he would do in such an interim period toward making a clinical diagnosis of an aneurysm of the circle of Willis, and also what other means there are of demonstrating an aneurysm.

Dr. Adolph L. Sahs, Neurology: These episodes in the acute state aren't usually very hard to identify, for the onset of symptoms in someone who previously has been healthy is relatively abrupt. Aneurysms usually appear in individuals who have enjoyed ordinary good health, and the original episode is usually a rather dramatic one, characterized by the sudden start of severe headaches, impairment of consciousness, sometimes a convulsive seizure and occasionally the development of immediate focal signs. It has been our experience that in the first episode at least the focal signs are not very likely to appear. The explanation may lie in the aneurysm's not as yet being surrounded by any sort of restraining tissue. The aneurysm gives way into a perfectly normal subarachnoid space, and the blood flows away rather freely into all portions of the cerebrospinal subarachnoid system. In order for the bleeding to stop, the lesion obviously has to become walled off in some fashion, and we feel that within a few days at least, some type of protective wall begins to form around the aneurysm. Now that process has its good and its bad features. The advantage is that the bleeding may thereby be arrested. The disadvantage is that if the aneurysm breaks again, it will most certainly rupture into the brain. That is precisely what happened in the case we have been discussing. Several processes probably occurred in the area. Specifically, there was hemorrhage and there probably was interference with the vascular supply to the aneurysm, an interference that resulted in the encephalomalacia which has been described in the pathologist's report.

I have also been asked how one identifies this situation in its first episode. I think one can do that by studying the clinical history and by taking a sample of spinal fluid during the acute phase. Information can be obtained as long as 10 days after the initial rupture. I think it is rather important for one to look rather carefully at the uniformity of the fluid as it flows out of the spinal puncture needle. Uniformly bloody spinal fluid in all three or four tubes means that the blood was there before the operator performed the spinal puncture.

In this case that we have been discussing, we are especially anxious to discover why the patient was confused and disoriented, and why she had severe headaches and nausea. These symptoms may have reflected a chronic meningeal irritative reaction, or may possibly have indicated that this aneurysm was beginning to expand and to act as a space-taking lesion. We know from looking at the pathologic specimen that at this time the aneurysm was probably large enough in itself to result in some of the symptoms of which she complained, particularly the loss of visual acuity. In the light of the subsequent findings, I think that we must interpret her complaint as referring to a loss of the field to the left. In other words, she had a left homonymous hemianopsia.

Dr. Seebohm: Though it has not been mentioned here this afternoon, there are many patients who manage to survive bleeding aneurysms without any specific medical treatment. Thus, if the diagnosis is made after an initial episode of bleeding, what are the possibilities for a surgical approach, and what is the prognosis if the problem is approached surgically? We have asked Dr. Perret to discuss these points. Specifically, I should like him to tell us what he should have done if this patient had been his and if he had known she had an aneurysm a month before the date on which she was admitted to this hospital.

Dr. George E. Perret, Neurosurgery: One suspects the presence of a ruptured aneurysm only if he finds blood in the spinal fluid. The minute we found blood in the spinal fluid of this patient, we thought of a rupured aneurysm, but we were unable to prove it. If the patient had not been comatose and if she had not ceased breathing unaided, we might have gone ahead to prove our clinical diagnosis by means of carotid arteriography. When we had injected radio-opaque dye into the carotid artery on the side opposite the hemiparesis, the films taken in AP and lateral positions would have shown us the presence of an aneurysm. We should then have known whether the aneurysm was pedunculated or not, and we should have known from exactly which vessel and, indeed, from what portion of which vessel the aneurysm had arisen. Whether or not surgical treatment was indicated would have depended (1) on the exact location of the aneurysm, (2) on the configuration of the aneurysm, and (3) on the vessel involved. If an aneurysm is located, let's say, exactly at the bifurcation of the internal carotid artery into the anterior and middle cerebrals, then tying off or ligating the aneurysm would not be feasible without the ligation of three vessels. If the aneurysm is located on the posterior communicating artery itself, then tying off the posterior communicating artery is usually feasible. If the aneurysm has arisen from the internal carotid artery just at the exit of the posterior communicating artery, then we must consider ligation of the carotid artery above and below the aneurysm, and also ligation of the posterior communicating artery. From the pathologist's report in this case, I don't know exactly from what portion of what vessel the aneurysm arose. It's very difficult to say whether the aneurysm can be actively treated or not unless one has made an arteriogram.

Now there's another question. Tying off the internal carotid artery in the neck was the treatment of choice for 50 or 60 years, before arteriography

was developed to the point of enabling us to visualize the aneurysm. Intracranial bleeding and the presence of blood in the the spinal fluid was usually thought to indicate a ruptured aneurysm, and if the patient had any symptoms pointing to one side, then the carotid artery on that side was ligated. Ligature of the internal carotid artery, or of the internal and common, or of the common alone has given fairly good results, and the people who report the treatment of ruptured aneurysm by ligature of the carotid artery have had better percentages of success than have the people who have made a direct surgical attack upon the aneurysm. But the statistics are unreliable, for the surgeons who ligated the carotid, or fairly large numbers of them, have in many instances failed to prove that an aneurysm existed. They have proved no more than the presence of subarachnoid bleeding in the cases on which they didn't perform carotid arteriography.

At present, we try a direct attack upon a ruptured aneurysm (1) if the aneurysm is pedunculated (that is, in the rare instances in which the aneurysm has a long neck between the main sac and the site at which it arises from the vessel we can put a ligature on the neck wherever the aneurysm is and ligate it); or (2) if the aneurysm is situated on the anterior or middle cerebral artery, on the internal carotid artery, on the posterior communicating artery or, occasionally, on the anterior communicating artery, so that we can put a ligature central and a ligature distal to the aneurysm on that vessel. When the aneurysm is located just at the site of the bifurcation of the carotid, trapping the aneurysm would necessitate ligature of the carotid, the middle cerebral and the anterior cerebral. I do not believe that such an aneurysm should be treated directly, for the ligation of all three vessels on the one side would certainly produce hemiplegia, and possibly coma and death. In such a case, I believe that carotid ligation is the proper thing to do.

The age of the patient and the cross circulation are important factors, even in carotid ligation. If the patient, for instance, has no anterior communicating artery and a poorly developed posterior communicating artery, then ligation of the carotid in the neck will produce infarction and hemiplegia. But these problems of cross circulation can usually be solved by arteriography, for by that means we can visualize the communicating vessels. But even when we know that a patient has good cross circulation, ligation of the carotid artery, wherever it is, can end in a hemiplegia, especially if the patient is beyond 40 years of age.

Dr. Sahs: There are two points which I should like to emphasize. First, the actual rupture of the aneurysm is the commonest clue to this condition. It is indicated by headache and by blood in the spinal fluid. Second, an aneurysm occasionally starts as a localized mass that produces compression on the optic nerve, the optic tract or the chiasm, or compresses the third nerve or ophthalmic division of the fifth cranial nerve. Under these conditions, an aneurysm may be suspected before a rupture has occurred.

Dr. James W. Culbertson, Internal Medicine: Are there any possible complications of cerebral angiography these days?

Dr. Perret: Occasionally we see complications of angiography. Convulsions can occur during the injection of the dye, or can become evident somewhat later, when the patient comes out of the general anesthetic. There may be all types of neurologic symptoms—hemiplegia, hemianopsia, coma, etc. Sometimes these complications are permanent, but they are usually transitory. A hemiplegia that is present when the patient awakens may last a few hours or as long as a day, and then disappear. The same thing is true of hemianopsia.

Occasionally we have had permanent hemiparesis. What is the reason? We aren't exactly sure. We don't think it's the chemical composition of the dye itself. Hemianopsia occurs more commonly in elderly people, and it occurs more commonly in people who have had sudden drops in blood pressure following the injection of the dye. It rarely occurs in people who have had a constant blood pressure. I don't think that it results from a type of allergy, for the patients have no other symptoms referable to such a cause. Though I doubt their theory, some people claim that injection of Diodrast produces spasms of the vessel. I have seen dilatation of the vessels more or less regularly. Just touching the carotid artery with a needle will produce a spasm, but the dye itself produces vessel dilatation. It is possible that injecting or perforating the carotid artery in an older patient who has some degree of arteriosclerosis might set up local thrombi which might form emboli and produce cerebral disturbances. Often at the time that angiography is performed for a ruptured aneurysm, some thrombosis has taken place within the aneurysm, and it is possible that the sudden, fast injection of the bolus of dye into the blood stream may loosen up some thrombotic material from the aneurysm and carry it into the more distal cerebral artery, thus producing definite encephalomalacia.

We are inclined to believe that the rapid injection of the dye may perhaps be responsible for most of the complications, for the dye then travels as an embolus, cutting off some blood from certain already poorly vascularized cerebral areas and producing severe changes that may, in turn, cause encephalomalacia.

Student: Is this a congenital type of aneurysm, and if so, why was the patient able to survive so long before a rupture occurred?

Dr. Layton: These lesions are not congenital in the sense that the aneurysm was present during embryonic life or at birth. They are congenital in the sense that there is maldevelopment of the walls of the arteries, with a lack of media in those particular areas and, perhaps, an absence of elastica

in some cases. Later, the aneurysm develops at the site of the maldevelopment.

SUMMARY OF NECROPSY FINDINGS

At autopsy, a ruptured arterial aneurysm 3 x 3 x 2 cm. was found involving the junction of the right internal carotid artery with the posterior communicating artery of the circle of Willis. Diffuse extravasation of blood occurred throughout the subarachnoid space, over the base of the cerebrum and cerebellum, around the brain stem and cervical spinal cord, and into the ventricular septum. Severe malacia involved the basal regions of the cerebrum and temporal lobe on the right, and a lesser degree of malacia involved the basal area on the left.

The rupture occurred on the inferior surface of the aneurysm. Brain tissue directly adjacent to the aneurysm was necrotic, and brain tissue between the superior surface of the sac and the ventricle was very soft. The aneurysm compressed the optic chiasm and right optic tract.

Other findings included pulmonary edema and collapse, mild bronchitis, multiple old peritoneal adhesions and diverticulosis of the sigmoid colon. Multiple tuberculoid lesions were present in the spleen.

NECROPSY DIAGNOSES

Ruptured intracranial aneurysm, arterial circle of Willis

Subarachnoid and intraventricular hemorrhage

Severe necrosis of cerebrum, cerebellum, brain stem and cervical spinal cord

Pulmonary edema and collapse

Granulomatous inflammation of spleen

Multiple old peritoneal adhesions

Diverticulosis of sigmoid colon.

Coming Meetings

In State

Nov. 2-3	**Otolaryngology for GP's.** SUI, Iowa City
Nov. 16-17	**Obstetrics & Gynecology.** SUI, Iowa City
Dec. 7	**Oxygen Therapy.** SUI, Iowa City
Dec. 7-8	**Cancer Symposium.** SUI, Iowa City

Out of State

Nov. 1-2	**Cardiac Roentgenology.** New York University, NYC
Nov. 1-2	**Environmental Medicine in Industry and Home.** St. Luke's Hospital, Cleveland
Nov. 1-3	**Rheumatic Diseases.** Tufts College, Boston
Nov. 1-3	**Obstetrics.** Kansas Univ. Med. Center, Kansas City, Kans.
Nov. 1-14	**Hematology & Blood Bank.** Univ. of Pennsylvania, Philadelphia
Nov. 1-14	**Pain Syndromes; Diagnosis & Treatment by Regional Block.** Univ. of Pennsylvania, Philadelphia
Nov. 1-24	**Clinical Obstetrics.** Harvard Univ., Boston Lying-In Hospital
Nov. 2-3	**Clinical Symposium on Management of Cancer of Breast.** Univ. of Texas, Houston
Nov. 2-6	**Differential Diagnosis With Slit Lamps (for ophthalmologic specialists).** New York University, NYC
Nov. 5-6	**Southeastern States Cancer Symposium.** Cancer Division of the Florida Board of Health, Jacksonville
Nov. 5-7	**Clinical Electrocardiography.** Colorado Heart Association, V-A Hospital and Colo. Univ. Medical School, Denver
Nov. 5-9	**Practical Electrocardiography.** Beth Israel Hospital, Boston
Nov. 5-9	**Diagnosis and Treatment of Congenital & Rheumatic Heart Disease in Infants and Children.** Cook County Grad. School of Med., Chicago
Nov. 5-9	**Forensic Pathology.** Walter Reed Army Medical Center, Washington, D. C,
Nov. 5-9	**Radiation Therapy for Radiologists.** Univ. of Minn. Center for Continuation Study, Minneapolis
Nov. 5-10	**Cardio-pulmonary Function Studies and Their Clinical Application.** Univ. of Vermont, Mary Fletcher Hospital, Burlington
Nov. 5-16	**Pediatric Cardiology.** Cook County Grad. School of Med., Chicago
Nov. 5-16	**General Surgery.** Cook County Grad. School of Med., Chicago
Nov. 5-16	**General and Surgical Obstetrics.** Cook County Grad. School of Medicine, Chicago
Nov. 5-16	**Pediatric Cardiology.** Cook County Grad. School of Medicine, Chicago
Nov. 5-16	**Gastroscopy & Gastroenterology.** Cook County Grad. School of Medicine, Chicago
Nov. 5-16	**Laryngology & Laryngeal Surgery.** Temple University, Philadelphia
Nov. 5-17	**Bronchoesophagology.** Univ. of Illinois College of Medicine, Chicago
Nov. 5-17	**Endaural Surgery.** New York University, NYC
Nov. 5-Dec. 1	**Neurology,** Montefiore Hospital, NYC
Nov. 7-9	**Fifth Annual Clinical Meeting, American Academy of Obstet. & Gynec.** Palmer House, Chicago
Nov. 8-9	**Radiology.** Tulane University, New Orleans
Nov. 8-10	**5th Western Cardiology Conference.** Univ. of Colorado and Colorado Heart Assn., Denver
Nov 11-12	**AMA County Med. Society Civil Defense Conference.** Hotel Morrison, Chicago
Nov. 12	**Cardiac Arrest and Resuscitation.** New York University, NYC
Nov. 12-13	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Nov. 12-13	**Office Proctology.** Mt. Sinai Hospital, NYC
Nov. 12-14	**Internal Medicine.** Kansas Univ. Med. Center, Kansas City, Kans.
Nov. 12-14	**Assn. of Military Surgeons.** Statler Hotel, Washington, D. C.
Nov. 12-14	**Problems of Clinical Medicine.** New York University, NYC
Nov. 12-14	**X-ray and EKG in Heart Disease in Infants & Children.** Cook County Graduate School of Medicine, Chicago
Nov. 12-14	**Recent Advances in Management of Cancer.** City of Hope, Duarte, California.
Nov. 12-15	**Internal Medicine.** Univ. of Kansas Med. Center, Kansas City, Kans.
Nov. 12-15	**Southern Medical Association,** Washington, D. C.
Nov. 12-15	**Pediatric Endocrinology & Related Metabolism.** New York Univ., NYC
Nov. 12-16	**Los Angeles Urologic Research Convention.** Ambassador Hotel, Los Angeles

Nov. 12-16	**Ann. Meeting, Am. Public Health Assn.** Convention Hall, Atlantic City
Nov. 12-16	**Postgraduate Short Course, Am. College of Chest Physicians.** Park-Sheraton Hotel, NYC
Nov. 12-16	**Electrocardiography.** New York University, NYC
Nov. 12-16	**Hematology.** New York University, NYC
Nov. 12-16	**Arthritis & Allied Rheumatic Diseases.** New York University, NYC
Nov. 12-17	**Investigation of Homicide.** Univ. of Cincinnati, Institute of Industrial Health, Cincinnati
Nov. 14-15	**Industrial Medicine.** University of Buffalo, Buffalo
Nov. 14-22	**Pan-Pacific Surgical Association.** Honolulu
Nov. 15-16	**Blood Bank Management.** Bunts Institute, Cleveland
Nov. 15-17	**Angiography and Catheterization, and Diagnosis of Malformations of Heart in Infants and Children.** Cook County Grad. School of Medicine, Chicago
Nov. 15-17	**Recent Advances in Surgery and Surgical Specialties.** Albany Medical College, Albany
Nov. 16-17	**Vascular Diseases.** Tufts College, Boston
Nov. 19-21	**Fractures for GP's.** Univ. of Minn. Center for Continuation Study, Minneapolis
Nov. 19-21	**Glaucoma, With Special Emphasis on Technics and Gonioscopy.** Brooklyn Eye & Ear Hospital, Brooklyn
Nov. 21-26	**Electrocardiography.** U.C.L.A., Los Angeles
Nov. 23-24	**Dermatology.** Tufts College, Boston
Nov. 25	**Southwest Ohio Society of GP's.** Univ. of Cincinnati, Cincinnati
Nov. 26-30	**Surgery of Colon & Rectum.** Cook County Grad. School of Medicine, Chicago
Nov. 26-30	**Selected Problems in Internal Medicine, Am. College of Physicians.** Univ. of Oklahoma, Oklahoma City
Nov. 26-30	**Management of Mass Casualties.** Brooke Army Medical Center, San Antonio
Nov. 26-30	**Peripheral Vascular Disease.** New York University, NYC
Nov. 26-Dec. 1	**Trauma, Excluding Fractures.** New York University, NYC
Nov. 26-Dec. 7	**Surgical Technic.** Cook County Grad. School of Medicine, Chicago
Nov. 26-Dec. 7	**Diagnostic X-ray.** Cook County Grad. School of Medicine, Chicago
Nov. 26-Dec. 7	**Fractures & Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 26-Dec. 7	**Air Pollution.** New York University, NYC
Nov. 26-Dec. 8	**Electrocardiography.** Tulane University, New Orleans
Nov. 26-Dec. 14	**Allergy.** New York University, NYC
Nov. 27-30	**AMA Clinical Meeting.** Seattle
Nov. 28	**Heart in Industry, Conference IV, Chicago Heart Association.** Morrison Hotel, Chicago
Nov. 28-29	**Diagnosis and Treatment of Fractures, Am. Fracture Assn.** Cook County Hospital and Drake Hotel, Chicago
Nov. 28-29	**Gynecology.** University of Buffalo, Buffalo
Nov. 29	**Cancer of Head and Neck.** Univ. of Nebr., Omaha
Nov. 29-30	**Graduate Symposium on Geriatric Medicine, Am. Geriatrics Soc.** Roosevelt Hotel, NYC
Nov. 29-Dec. 1	**Live Clinics & Panel Discussions in Clinical Endocrinology.** Univ. of Southern California, Los Angeles County Hospital
Nov. 29-Dec. 1	**Fracture Treatment.** Am. Fracture Assn., Bloomington, Ill.
Dec. 1	**Symposium on Immunology.** Milwaukee Academy of Medicine. Brooks Memorial Union, Marquette University, Milwaukee
Dec. 1-2	**Symposium on Heart Disease.** Monterey County Heart Association, Monterey, California
Dec. 1-15	**Bahamas Medical Conference.** Princess Margaret Hotel, Nassau
Dec. 1-21	**Pain Syndromes: Treatment by Regional Block.** U. of Penna., Philadelphia
Dec. 2-7	**Instructional Courses.** Radiological Society of North America, Palmer House, Chicago
Dec. 3-5	**Diagnosis and Treatment of Poisonings.** New York University, NYC
Dec. 3-5	**Infertility.** New York University. NYC
Dec. 3-7	**Electrocardiography and Other Graphic Methods in Cardiovascular Diagnosis.** University of Penna., Philadelphia
Dec. 3-7	**Advanced Electrocardiography.** Michael Reese Hospital, Chicago
Dec. 3-7	**Electrocardiography.** U. of Texas and Baylor U., Texas Med. Center, Houston
Dec. 3-7	**Gastroenterology.** American College of Physicians, U. of Penna., Philadelphia
Dec. 3-7	**Pediatric Cardiology.** New York University, NYC
Dec. 3-8	**Ocular Pathology.** Tulane University of Louisiana, New Orleans
Dec. 3-8	**Basic Concepts of Clinical Electrocardiography.** Am. Coll. of Physicians, University of Utah, Salt Lake City
Dec. 3-8	**Diagnosis and Treatment of Trauma.** New York University, NYC
Dec. 3-14	**Serology of Syphilis.** V-D Research Labs., Chamblee, Georgia
Dec. 5-7	**Ophthalmology.** University of California, San Francisco
Dec. 6	**Clinical Pediatrics.** University of Buffalo
Dec. 6-8	**Physical Medicine for Specialists.** U. of Minn. Center for Continuation Study, Minneapolis
Dec. 6-8	**Anesthesiology for G.P.'s.** U. of Minn. Center for Continuation Study, Minneapolis
Dec. 6-8	**Psychiatric Aspects of General Practice.** U. of Nebr. College of Medicine, Omaha
Dec. 7-8	**Review Course in Ophthalmology.** State U. of New York, Syracuse
Dec. 10-12	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Dec. 10-14	**Pathology of Diseases of Laboratory Animals.** Walter Reed Army Medical Center, Washington, D. C.
Dec. 10-21	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Dec. 10-21	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Dec. 12-13	**Minor Surgery and Office Orthopedics.** University of Buffalo
Dec. 13-15	**Pulmonary Diseases.** U. of Nebr. College of Medicine, Omaha
Dec. 14-15	**Safety Practices in the Operating Room.** New York University, NYC
Dec. 15-16	**Symposium on Industrial Medicine.** University of Miami, Coral Gables
Dec. 17-21	**Electrocardiography I.** Tufts Medical School, Boston

FOUNDATION OFFERS POSTDOCTORAL FELLOWSHIPS

December 1 is the deadline for submitting applications for the postdoctoral fellowships offered by the National Foundation for Infantile Paralysis. They are available in (1) rehabilitation, (2) psychiatry, (3) orthopedics, (4) management of poliomyelitis, (5) preventive medicine and (6) research and/or academic medicine.

In addition to a stipend varying from $3,600 to $6,000, depending upon individual needs, the National Foundation compensates the institution for the program which the recipient undertakes. For a full academic program, tuition and fees are paid; for other programs, a sum not to exceed $1,250 per year including fees is paid. The next deadline for applications will be March 1, 1957.

For further information, address the Division of Professional Education, 120 Broadway, New York City.



THE PROBLEM OF VOLUNTARY CONTRIBUTIONS

In view of the ever-increasing multiplicity of campaigns for funds by the various health and welfare agencies, all of us might do well to study the plan which the federal government proposes to institute on January 1, 1957, for its more than 5,200,000 employees (including service men and women at home and overseas).

The new system will provide that federal employees may be solicited on government property no more than three times each year, and in places where there are community united funds serving all recognized agencies, only one solicitation will be allowed. The maximum of three canvasses that the government contemplates are (1) for local community needs (the Community Chest); (2) for national welfare and emergency relief (service to our Armed Forces, National Red Cross); and (3) for national health agencies, care of the stricken and health education (Arthritis and Rheumatism Foundation, Muscular Dystrophy Associations of America, Inc., National Multiple Sclerosis Society, The National Society for Crippled Children and Adults, Inc., United Cerebral Palsy Associations, Inc., American Heart Association, Inc., American Cancer Society, Inc., etc.).

The precise limitations that will be imposed upon the individuals canvassing federal personnel have yet to be spelled out, but the government has announced its intention of protecting the employee's right to decide for himself how much he will give each time, and of guarding him against being required to meet a personal quota or being made to help meet a group one. In its preliminary announcement, the government said that it will take care that donors be permitted effectively to earmark all or part of each contribution—another means of preserving freedom of choice. As in the past, the government will make payroll deductions for nothing other than taxes and its own retirement pension plans.

It seems to us that there is a great deal to be said in favor of this scheme, and that if it works out satisfactorily, it should be widely copied. A reduction in the number of solicitations would cut the costs of fund-raising, thus providing more liberal support for the participating agencies and assuring donors that virtually every cent of their gifts would be used for the intended purposes. Since a handful of agencies that have made good things for themselves out of holiday seal sales or have been particularly successful with individual fund-raising campaigns may be unwilling to take part, it is improbable that such a plan can be entirely successful, but even a partial consolidation would be a boon to the self-employed and to wage earners alike.

FORBIDDEN AREA

According to a newly adopted New Jersey state law,* if a woman in that state asks her doctor to tell her of a couple who will adopt her baby, or asks him to make the placement without telling her who the adoptive parents are to be, he must refuse. Similarly, if a childless couple ask his help in finding such a child, he must say "No." According to the statute, "No person . . . shall place, offer to place, *or in any manner assist* in the placement of a child in the home of any other person for the purposes of adoption." Only licensed child-placing agencies may perform that function.

The theory that is said to underly the new law is that although physicians are experts in obstetrics, or internal medicine or in the art of helping people overcome their emotional ills, they are not experts in deciding which couples should take babies for adoption.

A corollary to that theory is that social workers are the experts in child-placement. One may object, first, on the grounds that evidence is lacking for attributing the wisdom of Solomon to social workers generally, or even to the elite among them who are assigned to do adoption work. And second, one has grounds for contending that the rigid sets of rules within which agency representatives work must sometimes prevent their placing children in homes where they might find complete happiness.

But it is argued that the physician is subject to several handicaps when he undertakes child-placement. First, he practices in a relatively circumscribed geographical area, and if the mother and the adoptive parents with whom he places the child are all patients of his, there is considerable likelihood of the mother's locating her baby, reasserting her rights and causing trouble, sooner or later. Second, because the doctor is busy and because the mother, more often than not, is an unmarried girl in danger of ostracism if it becomes generally known that she has given birth to a child, the arrangements are completed fast—before the girl has had an opportunity to reach a real decision about giving up the baby. Third, the doctor in some instances may be less interested in the future happiness of the child than he is in what the child

* J. New Jersey Med. Soc., 53:350 and 386-387, (Jul.) 1956.

may be able to do toward curing the emotional ills of the adoptive parents.

The recently adopted New Jersey law provides, in addition, that application for adoption must now be instituted immediately, rather than after a year has elapsed. The Court immediately appoints a social agency—usually the one which made the placement—to provide twelve months' supervision. At the end of that time, the agency makes a recommendation to the Court, and the Court either approves the adoption or orders that the child be removed. The formal surrender of the child by its natural mother (and father, if paternity has been established) is made to the child-placing agency, and after the preliminary adoption hearing, it can be voided only on proof of duress, fraud or error.

BOOTH HOME AND HOSPITAL

On Sunday, September 16, a number of the Polk County physicians and their wives attended open house at Booth Memorial Home and Hospital, in Des Moines, at the invitation of the superintendent, Salvation Army Brigadier Blanche Merrifield, and her staff.

The Booth Home and Hospital is an extraordinarily attractive and well run retreat for unmarried mothers during their prenatal periods and confinements. The hospital is affiliated with Iowa Lutheran Hospital; staff obstetricians attend the girls both in the home section of the institution and in the hospital section; and other medical and dental specialists are available on call.

As a Community Chest agency, Booth Home and Hospital received $14,983 toward the defraying of its operating expenses last year, and received a matching sum from the state funds of the Salvation Army. The balance of its operating expenses, $24,272.18, was met through collections from insurance plans, from the counties of the patients' residence and from the patients or their relatives. Though hospitalization and obstetrical benefits are by no means usually payable to pregnant policyholders who are unmarried, they are in many instances collectible when the patient is a minor dependent of a policyholder, and such is more and more often the case among the girls who are in need of the services that Booth offers. A reasonable fee is charged of the girls if they or their relatives are able to pay it, but no girl is refused entrance because of lack of funds.

When one considers that the Booth Home and Hospital has a capacity of 48 girls and 20 babies, that on an average day there are no fewer than 36 girls there, and that there are 11 full-time employees (including 5 Salvation Army officers, 3 R.N.'s, a cook, a laundress and an engineer) he begins to realize that Booth, with its operation and maintenance budget of $54,238.18, is managed superbly well.

During their residence at Booth, a period that averages between two and three months, the girls who haven't completed their public school courses may continue their education, and the credits they earn will be transferred by the Des Moines Public Schools to any other school. In addition, the girls participate in the institution's housekeeping and receive training in crafts, principally for the purpose of taking their minds off their troubles.

Religious services are conducted at Booth, but the girls are subjected to no pressure to take part in those ones of the Salvation Army's activities. Clergymen of other sects are free to visit those of the girls who wish their pastoral counsel. Social workers from local agencies are available to assist each patient in planning the future for herself and for her baby.

The medical staff currently consists of J. Donald Anderson, M.D., president; Verne L. Schlaser, M.D.; James L. Dickens, M.D.; Victor G. Parson, M.D.; Earl L. Redfield, M.D.; Carleton Helseth, M.D.; N. M. Hansen, M.D.; James E. Dyson, M.D.; and Ralph E. Dyson, M.D. The last two of these men provide the pediatric care.

THE DECLINING RELATIVE COST OF PHYSICIANS' SERVICES

Into the far upper right-hand corner of page 15 of the Des Moines REGISTER for August 31, 1956, a make-up man tucked an alleged news item of a length that permitted its use as "filler." Such tidbits sometimes tell of three-headed calves born in Irkutsk, Siberia—unnatural natural history. In other instances they have somewhat more significance. This one said: "In 1951 the average income of physicians before office and professional expenses was $22,298, a rise of 160 per cent since 1929."

Both literally and figuratively, that statement constituted a half-truth. The sum is authoritative, if properly understood and remembered, but the ordinary reader doesn't stop to consider what the term *average* really means, and if he even notices that the figure quoted is gross, rather than net, he can have no accurate notion of its meaning for he has no way of estimating the relative size of a physician's expenses. The percentage of rise that the newspaper alleged is grossly eroneous.

Now it is true that the *average gross* income of *non-salaried* physicians for the year 1951 was reported as $22,298 by the Office of Business Economics of the U. S. Department of Commerce.[1] But, first, the average of any set of numbers can be distorted by the inclusion of some highly extraordinary ones, and that is apparently what happened in this instance. The table from which it seems likely that the REGISTER got its figures—

1. "Incomes of Physicians, Dentists, and Lawyers, 1949-51," SURVEY OF CURRENT BUSINESS, July, 1952.

either at first or at second hand—contains another figure, the mean income of non-salaried physicians in 1951, and it is somewhat lower. The mean—i.e., the gross income of the private practitioner precisely in the middle, dollar-wise—was $18,169. We want particularly to emphasize that it was the mean *gross*. It was not the sum which the doctor was free to spend as he pleased. A doctor's expenses run in the neighborhood of 40 per cent of his gross. As a result, again according to this report of the Office of Business Economics, the *mean net* income for the non-salaried American physician in 1951 was $13,432. Finally, it must be pointed out that a considerable number of M.D.'s are not private practitioners, and the incomes of those who are not are somewhat less than are those of self-employed ones. The report of the Office of Business Economics says that the *mean net* income of *all* American physicians for the year 1951 was $12,518. That figure is more meaningful than is the one that the REGISTER quoted.

We are firm believers in the proposition that there are three kinds of falsehoods: (1) lies, (2) damned lies, and (3) statistics. But statistics, of course, don't have to be misleading. We are quoting an agency of the federal government, and we are being careful not to overlook any figures that might be construed to the detriment of the case we are making. A few sentences earlier, we said that an average is frequently nonrepresentative of the mass of numbers it purports to represent. As regards the gross income of non-salaried physicians for the year 1951, the average was higher than the mean. But whereas the *mean net* income of *all* physicians for that year was $12,518, the *average net* income was $10,285. Further, it is to be remembered that all of these "nets" are net incomes before personal income taxes, federal and state.

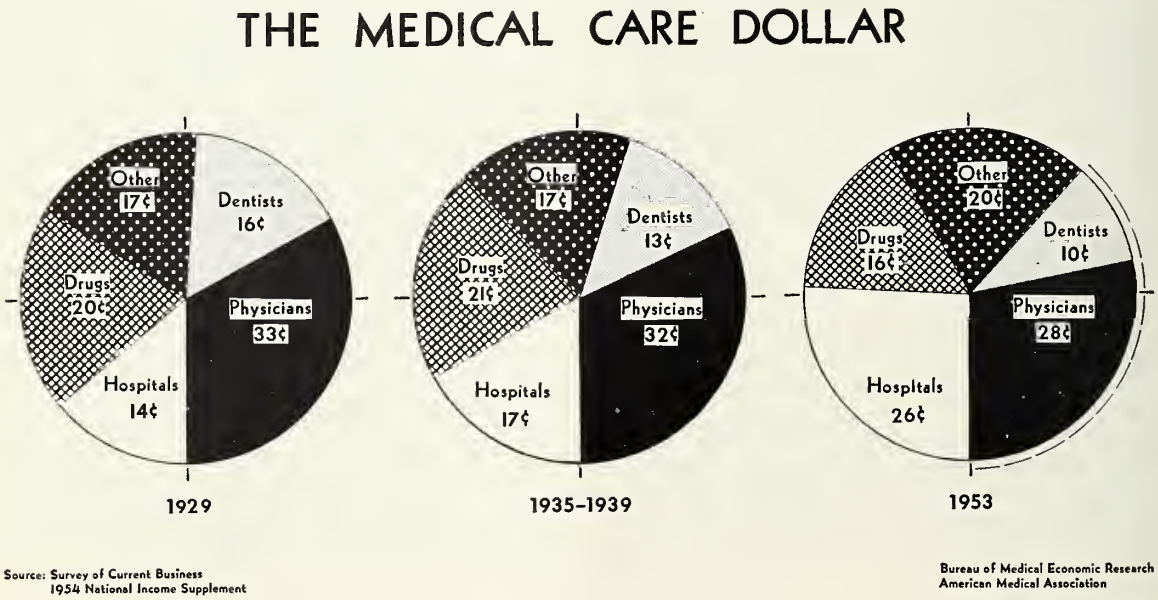
This very same report of the Office of Business Economics of the U. S. Department of Commerce states that the average net income of all American physicians increased 136 per cent—not 160 per cent—between 1929 and 1951. And the next sentence of the report says, "This was closely in line with the 141 per cent increase in the average income of all earners in the general population (wage and salary workers together with farm and non-farm entrepreneurs)."

M.D.'S GET LESS AND LESS OF THE HEALTH-CARE DOLLAR

Whether the typical physician nets ten or twelve thousand dollars a year, more or less, is by no means so significant as whether or not he is taking a disproportionate share of his patients' expendable income, or whether his share is greater than it used to be.

Between 1930 and 1955, the percentage that health-care costs represented among consumer expenditures rose from 3.99 per cent to 4.35 per cent, but doctors were not to any major degree responsible for that increase. Indeed in the same period, as the accompanying chart demonstrates, the physician's share of the health-care dollar actually declined, from 32.65 cents to 28.15 cents.

A rise of a third of one per cent during 25 years in the share of expendable income that Americans spend for health care is by no means unreasonable, when one considers the improvements that have been made in the effectiveness of that attention. But the factors that have contributed to that increase deserve to be called to attention. As the chart shows, the proportional cost of dental care and—surprisingly enough—the cost of drugs have decreased along with the cost of medical service. The increases have been in the cost of hospitalization and in expenditures for "All Other Medical Care," the chief constitutent of which is insurance.



People go to the hospital more willingly and more frequently than they once did. For example, between 1945 and 1953 the percentage of babies born in hospitals rose from 75 per cent to 83 per cent, and the number of births rose from 2,700,000 to 3,900,000.[2] Somewhat less than 100 per cent of each premium that people now are paying for hospitalization insurance, and surgery and in-patient doctor-bill insurance finds its way into the hospital's cash drawer or into the physician's bank account. Approximately one-ninth of it recompenses the administrators, bookkeepers and salesmen employed by the insurance company.[2]

This is the story that the REGISTER should have told, for all of it is to be found without difficulty, and we believe that all of it is strictly the truth. Hereafter, we ask, let the make-up man fill odd corners with reports of anomalous bovine progeny.

2. J.A.M.A., **159**:36 (Sept. 3) 1955; **159**:41-50 (Sept. 3) 1955; and **159**:119-127 (Sept. 10) 1955.

AMERICAN MEDICAL EDUCATION FOUNDATION

The American Medical Education Foundation was established in 1951 to help keep medical education free from federal government domination, and to help the medical schools achieve the improvements in facilities and program that they had planned. AMEF's goal, each year since then, has been to raise $2,000,000 which, when added to the funds contributed by business organizations through the National Fund for Medical Education, would nearly erase the schools' $10,000,000 annual operating deficit. Last year, AMEF collected $1,120,000.

The AMEF is not to be confused with the Educational Fund of the Iowa State Medical Society, for which, in 1954, the ISMS House of Delegates voted a $10-per-member special annual levy. Whereas the AMEF funds go annually to medical schools for the purchase of equipment, for professors' salaries and for whatever other uses the deans of the various institutions choose, the payments that Iowa doctors make to the Educational Fund of the Iowa State Medical Society are disbursed to Iowa medical students as loans, to be repaid with interest after the men have graduated and have started practicing medicine.

Though the AMEF and the NFME have never come even close to achieving their joint goal of raising $10,000,000 per year, their accomplishments have been considerable. Since 1951, they have sent checks totaling $9,598,491 to the medical schools, and they have been principally responsible for calling public attention to the work that medical schools do, for attracting grants to the schools from large foundations, and for bringing in a large share of the gifts that doctors send direct to the schools from which they graduated.

The administrators of AMEF are anxious to increase collections, in the expectation that more generous support from physicians will stimulate greater generosity from business leaders.

Iowa physicians, to date, have had no more than a modest share in the work of AMEF. Though the doctors in Illinois and Utah, through their state societies, have for years been contributing $20 each, and though those in California, Idaho, Nevada and Arizona have been making only slightly less substantial gifts as groups, Iowa doctors are contributing just one dollar per year each (the Baldridge-Beye Memorial Fund) through the Iowa State Medical Society, and their gifts as individuals have been rather negligible. Though about 2,700 physicians practice in the state, the total Iowa contributions to AMEF during 1955 amounted to $8,255.50. During the same year, they made direct gifts totaling $7,686 directly to the alumni programs of their own schools, but it is hoped that they can be persuaded to become more openhanded.

The 1956 campaign of the AMEF has only two more months to run.

NEW DRUG JUDGED HELPFUL IN ARTHRITIS

A team of Ohio physicians have found that a new drug comprised of salycilates and the adrenal hormone prednisolone is "of great value in the mild to moderate arthritis." The new preparation, Cordex, containing 300 mg. of aspirin and 0.5 mg. of prednisolone, was used in treating 400 patients at the arthritis clinic at St. Elizabeth's Hospital, Youngstown, and the four doctors, M. M. Szucs, Vitalij Holonko, K. M. Forster and Dario Nalagan, reported their results in the OHIO STATE MEDICAL JOURNAL.*

The general degree of improvement was judged, the physicians said, on the basis of the patients' skill "in the performance of such activities as to button coat, tie shoe laces, comb hair, open doors, walk, walk up steps, sit down and arise from chair, turn head right or left, and stoop to touch floor." They said, in addition, that mobility of knee joints and tenderness and swelling in other affected joints were evaluated too. They found notable improvement, and a minimum of side effects, and although they think this treatment may not prove suitable for severely crippled arthritics, they think it of great value in the mild or moderate case, when the physician may not wish to prescribe large doses of ACTH or adrenal corticosteroids alone.

In an addendum to their report, they say that they have begun using a stronger preparation, Cordex forte, in which the dosage of prednisolone has been tripled. On the basis of 100 trial cases, they report that Cordex forte produces "a marked improvement with minimal side effects."

* **52**:722, (Jul.) 1956.

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[1]Posner, A. C., *et al.;* Further Observations on the Use of Tetracycline Hydrochloride in Prophylaxis and Treatment of Obstetric Infections, *Antibiotics Annual* 1954-55, pp. 594-598.

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MEDICAL HISTORY



The Pioneer Doctors of Emmet County

ALICE CARY STINSON, M.D.

ESTHERVILLE

Little is known of the early days of the area that was to become Emmet County, Iowa. Among the earliest of the settlers were Mr. and Mrs. Robert Ridley, who came there from Maine in 1857. They took up a government claim, built a log cabin and had the stamina to "stick it out" despite the hardships and the fear of Indians that were characteristic of those years. They, with others, built Ft. Defiance for their mutual protection, and the town of Estherville was later named for Mrs. Ridley.

In the next few years many people left the settlement because they could not stand the "grind" and the shortness of money and food. In 1860, the population was only 105. After the Indian scare came the blackbird siege. It was said that blackbirds "filled the sky and the earth below." After them came the grasshoppers, and *they* stayed several years. As a result of the bird and grasshopper infestations from June until the last of September, not a blade of grass was left, and the gardens and all other vegetation were consumed.

A few doctors came and went during those early years, but since nothing concerning them, other than their names, can be found in the records, we have reason to think that they "folded their tents like the Arabs and silently stole away." Later came a succession of men who stayed and are more fully remembered.

Dr. Ezra H. Ballard came in 1868. A graduate of the Department of Medicine and Surgery at the University of Michigan, he was a very intelligent man but a typical frontiersman who cared little for appearances. The shirt he wore was as often dirty as it was clean. He carried his own drugs—Dover's powder, Com. Cath. pills, and a bottle of unknown contents. We must suppose that those preparations accomplished relatively little, but the doctor's heart and mind did a great deal for his patients. In social and political affairs, Dr. Ballard was always in the forefront, and when the town of Estherville was incorporated, in 1881, he was elected its first mayor. In addition to carrying on his medical practice, he acted as superintendent of schools during the early years, and was at various times county treasurer and county coroner. He died in Estherville in 1898.

Dr. E. B. Myrick came next. An 1876 graduate of the College of Physicians and Surgeons in Keokuk, he arrived in 1878. Though it is difficult to find out very much about him, it is obvious that he had a good practice and that he was particularly fitted to the pioneer environment. He died in 1896.

Dr. R. Wallace Salisbury, born in 1860, had graduated from the Homeopathic Medical College of Chicago in 1886, and came to Estherville immediately after graduation. His fine personality won him many friends, and though he was not of our school, we must give him credit for leaving an impressive memory when he died in 1913.

Dr. Clarius Confucius Birney, born in 1847, was a 1873 graduate of Rush Medical College, Chicago. He practiced in Estherville from 1894 until 1905, when he went back to Nora Springs, Iowa. While in Estherville, he ran the Birney Drug Store and helped his son Dr. Cleanthus E. Birney in medicine and surgery.

Dr. Edsil Walton Bachman had been born in Eau Claire, Wisconsin, in 1854. He received his degree from the College of Medicine at SUI in 1887, and was issued the fifth certificate to practice medicine in Iowa. At West Bend, where he practiced for 14 years, he also taught school. Later, he was county superintendent of schools and served as mayor of West Bend for several years, and as a state senator for two terms. He came to Estherville in 1900. He was a 32nd degree Mason. He was a very kindly man, and took much interest in the county medical society and in all public affairs. He died in 1924.

EARLY DOCTORS FACED OBSTACLES

Forty to 60 years ago doctors wrote few prescriptions and always carried their own drugs. They used horse and buggy or sleigh, or they rode horseback, and they carried lanterns or found their way by the stars. If a physician fell asleep, his horses carried him safely home. Roads were few, and they were often impassable. Screens for doors and windows were unthought of, and flies had their way. Quarantine was timidly used.

There were as yet no nurses, and the neighbor who had volunteered or been drafted as the doctor's assistant, many times became faint at heart and left the scene. The physician was social worker, cook, nurse, lawyer, priest and even under-

taker when necessary. Children were the victims of superstition, improper feeding and faulty hygiene. Dysentery was rampant, and many patients died from it. Typhoid fever was a common disease, and few thought of it as being water-borne. Pneumonia was a dreadful disease in those days. If a patient died, his survivors thought "it just had to be." If he lived, the doctor was credited with "bringing him through." How the people did fight against raising windows to get air into a room! Chloroform was very commonly used in those days. Boiling water was always on hand, together with sharp knives, other simple instruments, willing hands and iron wills. Strange to say, many patients lived!

Dr. Albert Anderson, born in Linn County, Iowa, in 1861, had been educated in the common schools and had had two years in a private school. He taught school and was for a time a train dispatcher before graduating from the Medical Department of SUI in 1891. He came to Estherville soon afterward; he took great interest in all public questions, including political ones; he was a Mason of Lodge, Chapter and Commandery; and he served on many local boards—city council, board of education and county insanity commission.

In 1900 he built the first hospital in Estherville. Later, Miss Ethel Walker, a trained nurse, ran a hospital for all of the physicians. In 1916, Dr. Anderson built a new building which is now attached to the Holy Family Hospital. He was chief surgeon there, and there he died, in 1919, of coronary thrombosis. He always was willing to let any other physician bring a patient to his hospital whenever a room was vacant.

Dr. Anderson's son Lloyd has given us an example of an operative case from those early days: "My father was a country doctor. There were no rural telephones in his early days, and when sickness or emergency came upon a farm family, it was necessary for someone to ride a horse to town to get a doctor.

"Among other cases, I have a clear memory of a dramatic episode that occurred during a big thunderstorm one night in 1900. At a loud pounding on our front door, I jumped from bed, ran to the window and looked down into the street. In a flash of lightning, I saw two saddled horses standing with drooping heads and heaving sides. Creeping down the stairs, I heard a man imploring my father to hurry with him to his farm, where his wife was desperately ill. After asking the man a few questions as to his wife's symptoms and as to the distance to his farm, my father dressed quickly, tied his bag and medical case to the saddle of the horse that had been brought for him, mounted and started off on the ten-mile trip in the pouring rain.

"It was noon of the following day when a team and buggy stopped at our house, the wheels and box of the buggy plastered with mud and the horses obviously tired from having gone through mud and water up to their bellies. A man helped my father take out his bag and medicine case.

"My father had found the man's wife suffering intense pain, unrelieved by the home remedies of the elderly woman who had been attending her, and his diagnosis was acute appendicitis. He considered immediate surgery imperative. A hypodermic injection temporarily relieved the woman's suffering, and while water was put to boil and the kitchen table cleared, he taught the husband how to administer chloriform. Then the elderly woman held an oil lamp in one hand and with the other handed instruments to my father as he needed them. The appendix was swollen and inflamed, but fortunately had not ruptured, and its removal was accomplished without undue complications."

Dr. William Edwin Bradley, born in La Crosse County, Wisconsin, in 1865, took his Bachelor of Science degree at the University of Wisconsin in 1890 and his M.D. degree at Rush Medical College in 1892. He came to Estherville in November of that latter year. He was a Mason, holding all offices to the Commandery. Dr. Bradley had a most wonderful personality and an almost intuitive understanding of people. He was a very intelligent man with a good background, and he brought to us more attention to urinalysis and the microscope than we had had before. He enjoyed a fine practice and lived until 1938.

Dr. John A. Finlayson was born in Mt. Carroll, Illinois, in 1859, and obtained his premedical education at the Illinois Normal School. He graduated from the Kentucky School of Medicine, in Louisville, in 1892, and soon afterward came to Armstrong, Iowa. He was greatly interested in the Emmet County Medical Society, and belonged, as well, to all of the other medical associations of his day. A good surgeon, he operated under difficulties in his patients' homes, like many others in those days. He died in 1905.

Dr. William Andrew Staggs was born in 1853 and graduated in 1889 from the Hahnemann Medical College. He came to Estherville in 1890 as an EENT specialist. He moved to Iowa City in 1916.

Dr. Cleanthus E. Birney was born in Nora Springs in 1873, the son of Dr. Clarius Confucius Birney, whose biography has already been sketched. He graduated from the Louisville Medical College, in Kentucky, in 1893, and he also attended Rush Medical College. A fellow of the American College of Surgeons as well as a member of the county, state and national medical organizations, he owned and operated the Birney Hospital from 1915 until 1937. After closing his own hospital, he belonged to the staffs of all the others, in 1947 qualified for membership in the Fifty Year Club, and has been made a Life Member of the Iowa State Medical Society. He still makes his home in Estherville.

A grave accident befell Dr. Birney in 1910. He

contracted tetanus at a time when few survived it. But when he first felt the symptoms, he gave himself 17,500 units of antitetanus toxin (later many more units were used), and was back at work within five days.

He has given the following account of the hardships that confronted him as a young man: "During the influenza epidemic that struck during World War I, the snow was so deep that the roads were impassable. I rode the train to make calls, and walked back—a distance of five to seven miles in some instances." Dr. Birney's life has been filled with enthusiasm for the noble profession that he chose as his life work, and his love for his fellowmen has made him defy all hazards, no matter how great.

Now for myself, Dr. Alice Cary Stinson Sumpter. I was born in Cincinnati, Ohio, in 1873, and came to Decorah with my parents in 1877. Anything worthy in me is to be traced to the one of my maternal grandmothers who was a nurse in the Civil War; my mistakes are to be attributed to my father's Revolutionary ancestry. After attending Valders College, in Decorah, I enrolled in Northwestern College, in Chicago, and taught in grade schools during each of the 3-month summer "vacations." After graduating from medical school in 1896, I started practicing in Riceville, and moved to Estherville in 1901. The following year I built a large house, which I used so that my patients might have a better chance. As a group, the doctors of Estherville ran three hospitals, and I was on the staffs of all of them. I have been a member of the Fifty Year Club since 1948, and am a Life Member of the Iowa State Medical Society.

The first boy from Emmet County to give his life in the Second World War, Donald Swartz, had been born at my place in 1924. I had worked many hours to save him, as well as his mother—but for what? War! For centuries, physicians have brought children into this world, many times at the cost of terrific strain and sleepless nights, and they should have more to say about how they go out.

Poverty in those years was terrific. Five destitute, sick children, ranging in age from 18 months to 10 years on their arrival, made their home with me. Most of them were motherless, they came from the worst of homes, and because no one else wanted them, I kept them. Their personalities varied. Some were good children, and some were hard to manage, but they all finished high school, and two of them were sent to college. Experience has taught me that defective germ plasm before birth decides a child's character, his strength of body and his intelligence. We still need more scientific study of the child.

I had a very dramatic experience in December, 1908. I had promised to attend a woman in confinement with her first child. Her husband was 65 years of age, and she was 35. When the call came, at about four in the afternoon, to "come at once," a terrific blizzard had started. Having insisted on going with me, my husband obtained a team at the livery barn, and we started on our eight-mile trip into the country. On my arrival, a woman who had been in attendance all day quickly turned all responsibility over to me and left the scene.

The patient had been in labor all day, and being convinced that she was about to die, she was anxious that I know in which drawer her shroud was to be found. After working almost all night to achieve a normal delivery, I came to the conclusion that I must use my instruments. But with my husband at work with the anesthetic and the patient's husband holding the kerosene lamp, I had only just begun the procedure when the light went out. Such a tragic moment! There was no more kerosene in the house; the lantern had been emptied; and there was no candle. I finally thought of matches, and after fumbling about, we found a whole box.

The woman's husband was trembling like a leaf and could light matches only at intervals, but one's hands seem more or less to find their own way at times like that. I was relieved beyond measure when I heard a loud, husky cry from the babe.

At daybreak, we had another struggle getting home through the deep snow. At one point, the floundering of one of our horses caused me to be thrown from the rig. But I scrambled back, and am here to tell the tale.

Dr. Charles Blackstone Adams, born in 1872, came to Estherville in 1897 after graduating from the medical school at SUI. He had taken special work in surgery and wished to specialize in it. In 1900 he helped Dr. Anderson plan the first hospital in Estherville, and he left in 1910 for Los Angeles, California, where it is likely that he still is living. He was a very capable man and a good surgeon.

Dr. Herbert Dayton Mereness, born in 1876, graduated from the medical school at SUI in 1898 and located at once in Dolliver. Though a quiet man, he was a battler for principles, and took an active interest in the county medical society. On occasion he drove through snow, sleet and deep mud to attend its meetings. He died in 1947, having practiced medicine to the last.

Dr. Maurice Edward Wilson, born in Canada in 1869, graduated from the SUI medical school in 1897 and came to Estherville that same year. He had a great and courageous spirit of helpfulness, and acquired a large practice. He kept up his work through sickness, until death overtook him in 1931.

Dr. Ottmer Nathaniel Bossingham, born in 1872, graduated in 1898 from the SUI College of Medicine, and after practicing for a short time at Lake Benton, Minnesota, settled at Ringsted. Later, he moved to Clarinda, where he died on May 28, 1951, of coronary occlusion. He was a member of

the AMA, the ISMS and the Page County Medical Society. He served on the staff of the Clarinda Municipal Hospital.

Dr. Leon Franklin Richardson, born in 1887 and the son of Dr. John Franklin Richardson, graduated from Rush Medical College in 1900. He came to Estherville in 1903 and moved in 1910 to Collins, where he practiced 45 years before his death, of coronary occlusion, on December 18, 1954.

Dr. Francis Adams Barber was born in a log house north of Estherville in 1866. After attending the Normal School in Whitewater, Wisconsin, he served as superintendent of schools in his home town. Later, he attended the Iowa State Teachers College, and thereafter taught and attended medical school in Iowa City until he was granted the M.D. degree in 1903. He stayed at SUI for specialty training, and then began EENT practice in Estherville. After six years, he moved to Clear Lake. He died at Rochester, Minnesota, following an appendectomy, in 1936.

THE EMMET COUNTY MEDICAL ASSOCIATION

As the population of Emmet County grew, the pioneer doctors were confronted by new problems. There was friction between them and the County Board of Supervisors over compensation for the medical care of the indigent. In part as a means of enforcing their point of view, the doctors met on October 8, 1903, at the office of Dr. C. B. Adams to form the Emmet County Medical Association. Dr. Adams was chosen as the first president; I was named vice-president; Dr. W. E. Bradley was elected secretary-treasurer; and the censors were Drs. Anderson, Bachman and Finlayson. Soon all of the doctors in the county were members, and a few from surrounding counties joined.

The meetings of the Association were a means by which the doctors helped one another. Diseases and treatment were discussed; local problems—even political ones—were talked over, and a friendly and helpful atmosphere prevailed. Membership dues were set at $2.50.

The founders' objective of getting doctors to present a united front to the county supervisors became a reality. Though the insurance companies had advised a cut from $5 to $3, a resolution was adopted refusing that proposal and suggesting that all doctors in the state follow suit. Another resolution was adopted to the effect that no member should submit bids for county contract practice. In consequence, the Board of Supervisors became less militant.

Through these years, the county experienced several epidemics of diphtheria. Parents expected the helpless doctor to sit beside their dying child until the very end, a terrifying experience that no physician relished. After the introduction of the antitoxin, new difficulties arose. Parents were frantic with fear of it, and even with fear of the needle by which it was administered. At a special meeting of all of the doctors, it was decided that if we were not allowed to use the serum, we should get our hats and leave, saying "When diphtheria strikes another of your children, call me back." Some trouble persisted, but by shaking the parents "over the coffin" of the youngster whom they had already lost, the doctors were able to get permission to inoculate at least the youngest remaining child in the family—the one who was in greatest danger of contracting the disease. Still, the physicians could expect to get a call in the night about one of the other children's having "turned black," but they had done as much preventive work as they could.

In 1916, our state medical society dues were raised to $5.00.

In about 1925, Emmet County slowly began to slide into the great Depression. The Board of Supervisors notified doctors that no payment would be made for the care of confinement cases. In an attempt to remedy the situation, the Emmet County Medical Society adopted a resolution requiring that "Confinement cases must be engaged previous to delivery and price settled." But of course the resolution accomplished virtually nothing. Families paid the doctor if they could, and if they couldn't, they got the doctor's services anyway.

Bills went unpaid. With 8 cent corn and $2 pigs, everyone was impoverished. Doctors took commodities when they could get them; in many instances they gave service without hope of recompense. Many people—including some doctors—heated their homes by burning corn. Finally every bank failed, and patients lost their life savings. During the day they hunted jobs, and at night they could afford no light other than what was given off by the fires in their stoves.

State dues had to be raised to $10 at this time.

If ever there were a battle for survival, the people of Emmet County waged it, and the doctors worked right alongside them. But finally they weathered the storm, and Emmet County resumed growing.

Dr. Fred Alonzo Engstrom, born in Cannon Falls, Minnesota, in 1883, graduated from the College of Medicine and Surgery at the University of Minnesota in 1908. A fine surgeon, he helped Dr. Anderson in Estherville's first hospital. In 1912 when his health began to fail, he moved away in search of a better climate.

Dr. Mathew Taylor Morton, born in Van Buren County, Illinois in 1890, came with his parents to a farm near Estherville in 1894. He graduated from the College of Medicine at SUI in 1917, and after serving briefly in the Army, he built a hospital called the Park-view Clinic in his home town. He was also on the staff of the Holy Family Hospital. He presented a paper on "Subacute Bacterial Endocarditis"* at the Annual Meeting of the

* J. Iowa M. Soc., 31:65-70, (Feb.) 1941.

ISMS in May, 1940. He was very good in diagnosis, and a great crusader. He never recovered from a serious injury he sustained in an automobile accident in October, 1952, and he died of cerebral hemorrhage in January, 1954.

Dr. Luther W. Loving was born in Dayton, Iowa, in 1891 and received his early education at Laurens. After graduating from the College of Medicine at the University of Illinois, he came to Estherville in 1930. A member of the Masonic Lodge and of the Emmet County Medical Society, and a very capable man, he is still practicing in Estherville.

Dr. James Bolton Knipe was born in Butler County, Iowa, in 1881, and attended public school and Drake University in Des Moines. He graduated from the College of Medicine at SUI in 1904, and located in Armstrong that same year. He always took an active interest in education and in the material welfare of the whole county. He and his wife met a violent death in 1949 when, as he was on the way to Spencer to deliver a lecture, his car collided with a truck.

Dr. George Humphrey West was born in Richland County, Wisconsin, in 1869. He graduated from the Northwestern University Medical School in 1903, and came to Armstrong soon thereafter. He practiced there until 1946—a total of 40 years —and then, upon his retirement, he moved to Chicago.

Dr. Elam Eugene Lashbrook was born in Waverly in 1882 and graduated from the College of Medicine at SUI in 1906. He practiced in Shellsburg until 1918, and from then until 1923 in Des Moines. When his health failed, he moved west, but after a few years he returned and settled in Marble Rock. In 1934 he came to Estherville, where he helped Dr. Morton in his Clinic. He held a life membership in the International College of Anesthesia, and he was president of the Emmet County Medical Association when he died of cancer, in 1942.

Dr. Andrew Irwin Reed, born in Pleasantville in 1884, graduated from the College of Physicians and Surgeons, in Keokuk, in 1908. Until 1928, he practiced medicine at Grand Junction, and since then he has been an EENT specialist in Estherville. He recalls numerous instances in which farmers hauled his car out of mudholes in the trails that were mistakenly referred to as roads. "Cars came long before roads were ready for them," he says.

Dr. Raymond Clare Coleman was born in Humboldt County, Iowa, in 1889, and graduated from the College of Medicine at SUI in 1912. He went to Europe for postgraduate medical education, and returned in 1914 well trained in surgery. He was a surgeon in the Anderson hospital, and later bought it and added a large annex. There he worked with high ability until death overtook him suddenly in 1933.

For 11-years, or until the Holy Family Hospital took it over in 1944, John M. Wolden, of Wallingford, was superintendent of the hospital for all of the doctors.

Dr. James P. Clark, born in Ogden, Iowa, in 1890, graduated from the College of Medicine at SUI in 1925 and held a residency in surgery at Union Hospital in Iowa City from then until 1931. He came to Estherville in 1932, to assist Dr. Coleman with his operating. He served as a captain in the U. S. Army from 1942 to 1945, and now he is the very best equipped surgeon at Holy Family Hospital.

Dr. Smith Christian Kirkegaard, born in Denmark in 1890, graduated from the medical school of the University of Nebraska in 1926. After practicing at Ringsted for 16 years, he came to Estherville in 1943. He acquired a fine practice and was associated with the Park-view Clinic until his death in 1949.

CONCLUSION

These pioneer doctors did much besides giving pills and lancing boils.

They brought sympathy, spiritual strength and courage.

They forged the way by their effort, zeal and deeds. They brought out many scientific truths.

By sacrificing their interests to the common good, they set an example of altruism.

Social revolution must continue! In political and human relations there has been a bit of progress, but there has also been a dangerous retreat.

With all of our new discoveries in drugs and surgery we may have learned how not to die. But we have not yet learned *how to live!*

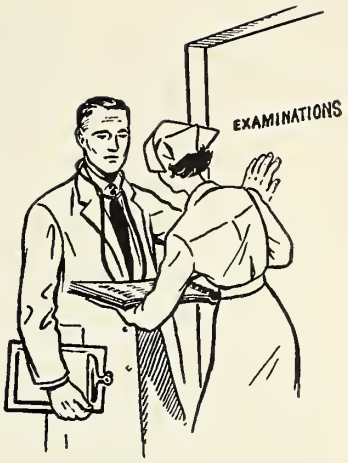
POSTGRADUATE STUDY IN THE BAHAMAS

During the Bahamas Medical Conference, in Nassau December 1-15, informal meetings and discussion groups will be held in the Princess Margaret Hotel at convenient hours, allowing ample time for recreational activities.

The Conference offers a wonderful opportunity for recreation and rest for doctors and their families. Flowers are in bloom in Nassau in the wintertime, and the average temperature is about 70° F. Since there are no tropical illnesses on the island, inoculations are not required.

Reduced hotel rates have been arranged for the conferees and their families. The registration fee is $75, and there are no other fees. For tax purposes, a certificate will be issued to each of the doctors attending the meeting. Reservations and travel arrangements should be made through Allen Travel Service, Inc., 550 Fifth Avenue, New York City 36. Dr. B. L. Frank, who has offices in the same building with that agency, is the organizing physician.

THE DOCTOR'S BUSINESS



Planning a Partnership Office

MILLARD K. MILLS
WATERLOO

Though the basic requirements of a good office are more or less the same, regardless of the number of doctors who are to practice in it, there are several problems in lay-out that group-practice quarters occasion. We shall attempt to enumerate them and to suggest some possible solutions.

The size of your reception room should depend upon the number of doctors in your partnership, their specialty and their method of operation. It would be well for all of you to sit down together and determine approximately how many patients each of you sees in a day and how many will be waiting at one time. This is an important consideration, since failure to provide adequate *comfortable* seating for all patients cannot help damaging your public relations.

The requirements for your business office will be the same except as regards size. The need for a window through which the girls can greet patients and a counter at which they can talk with them in comparative privacy are just as important in a group practice as in a solo one. One should also remember that as nearly as possible the business office needs to be equally accessible to all of the doctors. Adequate space should be allowed for the required number of desks, and attention should be paid to the spacing of those desks. Naturally, in a busy office, the two girls should have convenient access to the telephone, but the more privacy each of them has, the more efficient her work can be and the less likelihood there is of their engaging in unnecessary conversation.

If you have a posting machine and if your volume warrants your employing a bookkeeper, it is wise for you to provide a bookkeeping office. Privacy will facilitate the bookkeeper's work and prevent the noise of the posting machine from disturbing the other workers. If the bookkeeper is put in charge of financial arrangements, the girl at the counter can refer the departing patient to her office for private conversation regarding advance arrangement for payments, or regarding the settlement of a delinquent account. The bookkeeper's office need not be larger than 8′ x 10′, but it should not be much smaller, for it is disturbing to operate a machine where the noise rebounds markedly.

Mr. Mills is general manager of professional management.

WORK AREAS FOR DOCTORS

In the placement of all other rooms, consideration should be given to the convenience and the preferences of the doctors. A consultation room and at least two examining rooms should be provided for each man, and they should be close together. Frequently doctors share a third examining room, and it should be easily accessible to both. So should the auxiliary rooms. In a two-man partnership, some doctors prefer a single hall, with the doctors' work areas placed on opposite sides of it. Consultation is facilitated by such an arrangement. The auxiliary rooms under such a plan are usually put at the rear of the building. Since far more patients enter the examining rooms and consulation offices, these should be as close to the reception room as is possible.

If doctors desire more privacy, their respective work areas can be located in opposite ends of the building. This means one of two things—either that the business office, laboratory, x-ray and other jointly-used rooms are convenient only to one of them, or that the reception room must be located in a unit separate from the doctors' work areas. The latter arrangement is certainly preferable, and even though it may increase the cost of the building, it can make it more attractive.

When there are four or more doctors, two hallways are necessary, and the auxiliary rooms are then placed in the center of the building accessible from both sides.

The size of consultation and examining rooms in a partnership suite need not vary from the standard 8′ x 10′. It is the placement of those rooms for the convenience of all that is most difficult when one is planning a partnership office.

Iowa Academy of General Practice

GUARDING OUR PRIVILEGES

As we approach Thanksgiving and Christmas, it is fitting that we direct our thoughts and attention to some of the aspects of our lives as Americans and as doctors for which we have reason to be grateful, and to the precautions we can take to assure their continuance.

We should be thankful for the land we live in and for the privilege we have, by right and inheritance, to live our lives as we individually see fit. Each of us has the right to attend the church of his choice, and though it may seem, when we think about it no more than casually, that no one is likely to threaten that freedom, we have only to remember that our nation's single important enemy is a godless one. For that reason, we must lend our support to the maintenance of our country's defenses.

Each of us has the privilege and the responsibility to vote for the candidates for public office who seem to him most likely to do a good job of managing our country's affairs. Thus, we must make up our minds carefully, give active support to the candidates whom we have chosen, and then vote!

Finally, each of us has the right to practice the kind of medicine for which he is qualified by training and experience. That privilege is shared by no more than a small percentage of the world's physicians.

Indeed, there are many places in the United States where doctors of medicine do not have the privilege of hospital staff membership that all of us have in Iowa. Practically every physician in our state has the right to render his services to all persons who need them, in whatever place seems most expedient—whether home, office or hospital. It is our duty to ourselves and our obligation to our patients to see that this freedom is maintained.

The best public relations can be maintained if every physician does his best with each of his patients. Unfortunately for us, all people do not get sick or incur injury between nine in the morning and five in the afternoon. If we are to call ourselves physicians, it is our moral obligation and duty to take care of them, no matter what time of the day or night they are in need of our attention. Most of us unhesitatingly do just that. It has been said that five per cent of people cause 95 per cent of all trouble, and that rule holds good in our profession. There is not so much wrong with our situation today that a little old-fashioned honesty and human kindness will not correct it.

The steadily increasing cost of medical care, in dollars and cents (even though that cost is increasing less rapidly than is the cost of all other things that people buy) is a factor in the chain of events which leads people to ask for socialized medicine. Unnecessary hospitalization should be avoided, since many of our hospitals are already overcrowded and since overutilization necessitates increases in the premiums charged for hospitalization insurance. The determining factor in the hospitalization of any patient should be the medical need, rather than the convenience of the physician or the fact that the patient has insurance.

The modern practice of medicine requires many and sometimes expensive laboratory and other diagnostic procedures, but careful histories and good physical examinations can keep these to a minimum.

In the past few years, many new and marvelous therapeutic preparations have been added to our armamentarium. Unfortunately, many of these drugs are quite expensive. It therefore behooves each one of us to be reasonably sure that the medications which we prescribe are definitely indicated, and that we require our patients to buy no more of them than is necessary. Let us be as careful with our patients' money as we would be with our own.

To preserve the practice of medicine as we know it today, every practicing physician must be vigilant in maintaining good public relations and in minimizing the costs of medical care. If we succeed in those tasks, we can face the future unafraid and with confidence.

POSTGRADUATE LECTURES AT WATERLOO

The October issue of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY (page 563) carried the program for the IAGP Regional Postgraduate Course to be held at the Elks Club, in Waterloo, on Thursday, November 15, 1956.

The lecturers are staff members of the Mayo Clinic, in Rochester, Minnesota.

All doctors in the state are cordially invited to attend, and those in the northeastern section of Iowa are particularly encouraged to take advan-

tage of this opportunity. Registration will begin at 8:00 a.m., and the first lecture will start at 9:00 a.m. As in the past, members of the Academy and their guests may register free. All non-members will be charged a registration fee of $5.00.

COUNTY SOCIETIES' CIVIL DEFENSE CONFERENCE

The seventh yearly conference of the County Medical Societies' Civil Defense Organization, sponsored by the AMA, will be held at the Morrison Hotel, Chicago, on November 10 and 11, 1956. It is designed to assist local groups with health and medical planning in preparation for emergencies and disasters. Representatives are provided opportunities to discuss and exchange information on topics of mutual interest, and in addition they receive practical data with respect to individual and group planning.

Further information can be secured from the executive secretary of the Iowa State Medical Society, or from Mr. Frank W. Barton, secretary of the Council on National Defense of the AMA.

MEDICLINICS OF MINNESOTA

The second annual postgraduate refresher course sponsored by Mediclinics of Minnesota will be held in Fort Lauderdale, Florida, March 4-14, 1957. The Florida Academy of General Practice is the local sponsor, and the AAGP has certified the program for 32 hours of formal postgraduate credit (Category I).

The course will consist of lectures and panel discussions conducted by a faculty well able to present the varied subjects in the several fields of medicine. Registration will be limited to 300, and the Ft. Lauderdale housing committee has given assurance of accommodations for that many doctors and their wives, provided that reservations are made well in advance. Tuition is $50, payable in advance. Luncheons, at $2.50 each, are extra. For detailed programs and for information about the special train, physicians should address Mediclinics of Minnesota, 516 Medical Arts Building, Minneapolis 2.

ATTENTION CALLED TO GP'S RESPONSIBILITY

In the March, 1956, issue of MEDICAL TIMES,* Dr. E. A. Larsen, of Centerville, has called attention to the general practitioner's "unique position of encountering the largest number of congenital cardiac malformations." Since GP's, he points out, no doubt deliver and care for more infants than do any other group of physicians, it is they who should most frequently bring the difficulties to the attention of the children's parents, without overemphasizing inconsequential findings; they should prevent infection from complicating them; and they should refer them to cardiac surgeons at the optimal time for correction.

It has been said that approximately one per cent of the newborn have a congenital malformation of the heart. A well-taken chronological history and a physical examination, as well as blood studies, electrocardiography and roentgenography, Dr. Larsen says, are very helpful preludes to cardiac catheterization, angiocardiography and others of the recently improved diagnostic procedures.

He summarizes rather briefly the murmurs, cyanosis, clubbing of fingers, hypertension, developmental retardation and fatigability which can be detected either perinatally or in pre-school or school examinations, and which are indications for referral to specialists.

* Larsen, E. A.: Are we finding them? MEDICAL TIMES, 84:265-268, (Mar.) 1956. Through an editorial error, Dr. Larsen's colleague Dr. E. F. Ritter has been named as co-author.

"MARCH OF MEDICINE" SHOW ON MISSIONARY WORK

The story of missionary medicine will be presented in a one-hour "March of Medicine" documentary telecast this month. The program, sponsored by Smith, Kline & French Laboratories in cooperation with the AMA, will be carried on 75 stations of the NBC-TV network on Tuesday, November 27, at 8:30 C.S.T., in place of the "Armstrong Circle Theatre." It will be the first such program to be televised in color.

It will follow the daily activities of Dr. John E. Ross, who has served for the past eight years as a mission doctor in the Belgian Congo. Dr. Ross (a native Californian and a graduate of the Indiana University School of Medicine) spends 14 hours a day operating in native huts, traveling to distant bush clinics and caring for lepers in the leprosarium that he established soon after arriving in Africa.

This is the second program in the series to explore the activities in medicine outside the United States. The first reported the residual effects of atomic radiation 10 years after the dropping of an A-bomb on Hiroshima, Japan.



STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

TUBERCULOSIS WILL STAY WITH US

America's number-one infectious disease is still a problem for Iowans. The amount of reported tuberculosis in the state is decreasing, but the disease has by no means been conquered. During the past five years, 3,478 cases have been reported to the Iowa State Department of Health.

From the following table, which gives the number of reported cases of tuberculosis by years and the percentage of decrease in each year, the instability of the rate of decrease is especially obvious.

Year	*Number of Cases*	*Per Cent of Decrease*
1951	833	2.12
1952	768	7.80
1953	744	3.13
1954	627	15.73
1955	506	19.30
	3,478	

From those figures, one can compute that the average per cent of decrease during the past five years has been 9.62 per cent per year. The assumption can be made that the number of reported cases will continue to decrease, and assuming that the percentage of decrease will average to the same figure for the next five years, one can project the following figures:

Year	*Number of Cases*	*Per Cent of Decrease*
1956	457	9.62
1957	413	9.62
1958	373	9.62
1959	337	9.62
1960	305	9.62
	1,885	

Thus, by projecting our facts into the future, we can expect 1,885 cases of tuberculosis to be reported in Iowa alone. This is an average of 377 cases per year, or more than one each day for the next five years!

For the past five years, Iowa's tuberculosis case rate was 26.5 per 100,000 people. No one county in the state was without a reported case for that period. Twenty-four counties showed a rate in excess of 30 per 100,000, and of them there were three counties that had rates in excess of 40 per 100,000. A total of 1,401, or 40 per cent, of the new cases occurred in the ten counties where the Iowa Tuberculosis and Health Association has executive secretaries, ones containing 35 per cent of the state's population according to the 1950 census.

Sixty-three per cent of the tuberculosis patients were male, and 37 per cent female. In the upper age brackets the preponderance of males was greatest. In ages 45 and over, there were 1,326 men and 593 women. In men 60-64 years of age, the incidence was 79.0 per 100,000, and in men 55-59, it was 76.8 per 100,000. Among women 65-84 years of age, contrastingly, the rate was no more than 35.7 to 38.4 per 100,000. The peak incidence among women was in the age group 20-45.

SPECIFIC DANGER SIGNS

1. In county-wide x-ray programs in Iowa, one new case of tuberculosis has been found among each 1,746 people x-rayed. This indicates that there are at present no fewer than 1,500 people in Iowa who have tuberculosis but don't know it.

2. In 1955 there were approximately 1,500 T-B cases occupying hospital beds in the state.

3. A recent uncompleted Iowa study reveals that a total of 301 T-B patients have walked out of hospitals against medical advice during the past three years. Of them, 251 were either active cases with positive sputum, or were classified by the hospital as potentially infectious, meaning that if treatment were interrupted these people would revert to the infectious stage. Sixty-six counties are involved. Many received three or four of these patients; several received five or six; two received eight; two received nine; and two others received 11 and 21, respectively.

RESERVOIR OF INFECTION

The true index of the potential seriousness of the problem is the reservoir of infection. It consists of people who have been infected and who, if tested, react to the tuberculin skin test.

It has been estimated that from one to five new cases develop each year per thousand of tuberculin reactors. In the Jones County tuberculin testing program, in which more than 70 per cent of the entire population of the county was tested, 10.2 per cent were found to be reactors. That means that over 1,900 people in Jones County comprise

the group from which new cases develop annually. Twenty new cases—an average of four per year—have been reported from Jones County during the past five years.

It is safe to assume that more than 10 per cent of the total Iowa population has been infected, for experience gained in other places indicates that reactors make up as much as 30 per cent of the population in urban centers. The composition of the population is a factor to consider, also. Whereas in Jones County no more than 10.2 per cent of the whole population were found to be reactors, 30.1 per cent of the males between the ages of 55 and 59, and 21.1 per cent of the females between the ages of 50 and 56 reacted positively.

If one applies the Jones County experience to the state of Iowa as a whole, recognizing that 10.2 per cent reactors is a low figure, he finds that there are at least 269,000 people infected with tubercle bacilli. In each of the years to come, a number of them will develop active tuberculosis. Thus, the disease will be with us for a long time to come.

SIGNIFICANT FINDINGS IN "POLIO" CASES

Significant findings in some of the 86 cases in Polk County, Iowa, which were reported as "poliomyelitis" suggest that they weren't poliomyelitis at all. A careful check has shown that there hasn't been a paralytic case among them. And 41 of the 86 patients had had from one to three injections of poliomyelitis vaccine.

POLK COUNTY "POLIOMYELITIS" CASES, 1956
(Through September 14)

Age	*Number of Cases*	*Number of Injections of Salk Vaccine*
Under 20 years	29	0
	5	1
	25	2
	5	3
Over 20 years	16	0
	1	1
	5	2
	86	

These cases do have the same seasonal distribution as poliomyelitis, and their onset and their course during the first few days of illness are identical with non-paralytic poliomyelitis. But none of the patients develop paralysis. Their recovery is usually complete in from 10 to 14 days.

Coxsackie B-5 virus has already been isolated from four of these cases and from three family contacts. Signs, symptoms and laboratory findings are those of Coxsackie B infection. Thus, we believe that most of the Polk County cases of "poliomyelitis," like those reported from elsewhere in Iowa, are not poliomyelitis.

Laboratory reports are beginning to come through to us on some of these cases diagnosed as non-paralytic poliomyelitis. Blood and fecal examinations have been completed on specimens from 30 patients and family contacts. None have revealed any of the strains of poliomyelitis virus. In 22 (from three counties: Polk 7, Cerro Gordo 13 and Dubuque 2), the Coxsackie B-5 virus has been isolated. If many of these cases were actually non-paralytic poliomyelitis, some of the completed laboratory examinations would have revealed the virus of poliomyelitis, since it is no more difficult to isolate than are the Coxsackie viruses.

Of course there is some poliomyelitis in Iowa this year. The immunizations may have had a definite part in causing a material reduction in the number of cases of the disease, since two-thirds of our poliomyelitis cases have normally been reported in the under-20 age group. At least half of this age group has received the Salk vaccine.

MORBIDITY REPORT FOR MONTH OF SEPTEMBER

Disease	*Sept. 1956*	*Aug. 1956*	*Sept. 1955*	*Most Cases Reported From These Counties*
Diphtheria	0	0	0	
Scarlet Fever	23	9	5	Polk, Guthrie, Des Moines, Johnson
Typhoid Fever	1	3	2	Woodbury 1
Smallpox	0	0	0	
Measles	51	103	62	Linn, Mills, Polk, Clay, Scott, Story
Whooping Cough	35	51	38	Polk, Franklin, Lee, Floyd
Brucellosis	16	18	19	Dubuque 2, Wapello 2, Wayne 2, others scattered 1 to a county
Chickenpox	30	28	10	Polk, Palo Alto, Story, Buena Vista, Black Hawk
Meningococcus Meningitis	3	3	0	Polk 2, Osceola 1
Mumps	50	32	92	Linn, Des Moines, Scott, Polk, Dubuque
Poliomyelitis	300	186	115	Black Hawk, Polk, Dubuque, Linn, Clay
Infectious Hepatitis	22	16	36	Polk, Linn, Marion, Allamakee, Clinton, Fayette
Rabies in Animals	12	15	10	Pocahontas 2, 1 each to Boone, Calhoun, Crawford, Hancock, Henry, Keokuk, Montgomery, Scott, Warren, Webster
Malaria	2	0	0	Jackson 1, Muscatine 1 (both out-of-state origin)
Psittacosis	1	1	0	Calhoun 1
Q Fever	0	0	0	
Tuberculosis	24	31	37	For the State
Syphilis	94	98	95	For the State
Gonorrhea	55	55	61	For the State
Histoplasmosis	1	2	0	Polk 1
Food Intoxication	10	0	0	Des Moines 10
Meningitis (type undetermined)	7	8	0	Polk 3, Black Hawk 1, Winneshiek 1, Pottawattamie 1, Wapello 1
Diphtheria Carrier	1	0	0	Boone 1
Aseptic Meningitis	3	2	0	Polk 1, Cerro Gordo 1, Wright 1
Salmonellosis	1	7	0	Polk 1
Blastomycosis	1	0	0	Marshall 1
Tetanus	2	1	1	Dubuque 1, Benton 1
Chancroid	1	0	0	Clinton 1
Coxsackie B-5	22	0	0	Cerro Gordo 13, Dubuque 2, Polk 7
Virus Infection	1	0	33	Buena Vista 1
Encephalitis	5	2	1	Clinton 1, Cherokee 1, Jasper 1, Ringgold 1, Scott 1
Influenza Meningitis	2	0	0	Polk 1, Wapello 1
Typhoid Carrier	1	0	0	Polk 1
Rocky Mountain Spotted Fever	1	4	0	Jefferson 1
Amebiasis	1	0	2	Montgomery 1

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

DISEASES OF THE BREAST, by *C. D. Haagensen,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $16.00).

CLINICAL PATHOLOGY: APPLICATION AND INTERPRETATION, Second Edition, by *Benjamin B. Wells,* M.D., Ph.D. (Philadelphia, W. B. Saunders Co., 1956. $8.50).

DISEASES OF THE HEART, Second Edition, by *Charles K. Friedberg,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $18.00).

THE CERVICAL SYNDROME, by *Ruth Jackson,* M.D. (Springfield, Illinois, Charles C Thomas, 1956. $4.75).

MANUAL OF HAND INJURIES, by *H. Minor Nichols,* M.D. (Chicago, The Year Book Publishers, Inc., 1955. $9.50).

CHRONIC ILLNESS IN THE UNITED STATES: VOLUME II, CARE OF THE LONG-TERM PATIENT, by the Commission on Chronic Illness. (Cambridge, Massachusetts, Harvard University Press, 1956. $8.50).

PELVIMETRY, by *Herbert Thoms,* M.D. (New York City, Paul B. Hoeber, Inc., 1956. $5.00).

DICTIONARY OF POISONS, by *Ibert Mellan* and *Eleanor Mellan.* (New York City, Philosophical Library, Inc., 1956. $4.75).

1956-1957 YEAR BOOK OF MEDICINE, ed. by *Paul B. Beeson,* M.D., *Carl Muschenheim,* M.D., *William B. Castle,* M.D., *Tinsley R. Harrison,* M.D., *Franz J. Inglefinger,* M.D., and *Philip K. Bondy,* M.D. (Chicago, The Year Book Publishers, Inc., 1956. $6.75).

BOOK REVIEWS

INTERNAL SECRETIONS OF THE PANCREAS, Ciba Foundation Colloquia on Endocrinology, Volume IX, ed. by *G. E. W. Wolstenholme,* O.B.E., M.A., M.B., B.Ch., and *Cecilia M. O'Connor,* B.Sc. (Boston, Little, Brown and Company, 1956. $7.00).

This book consists of a collection of papers written by British research scientists and discussed in panel conferences at the London site of the Ciba Foundation. The research projects were directed toward the discovery of the cause of diabetes and of the nature of insulin and glucagon.

Glucagon is secreted by the alpha cells of the pancreas, and insulin by the beta cells. Glucagon elevates the blood sugar, insulin lowers it, and there is reason to suspect that an imbalance of these hormones can be found in some types of diabetes. One interesting paper discusses the results of destroying glucagon production in animals. Other papers speculate on the chemical structure of insulin, its action on peripheral tissues, and the effect of growth hormone on its secretion by the pancreas.

To anyone interested in diabetes and its physiology, this is an interesting and worthwhile collection of projects.—*Arthur G. Lueck,* M.D.

SURGERY OF THE HAND, Third Edition, by *Sterling Bunnell,* M.D. (Philadelphia, J. B. Lippincott Co., 1956. $22.50).

In medical schools and libraries throughout the world, this distinguished book has become the standard reference in its field. The newly issued third edition contains added material on antibiotics, cross-finger flaps, contraction and paralysis of intrinsic muscles, thumb reconstruction, burns, rheumatism, etc.

Notwithstanding its size and the exhaustive information it contains on every subject pertinent to the hand, this book is very readable, because of the author's direct style and his practical approach to hand problems. Indeed one can reread certain chapters several times not only profitably but enjoyably.

SURGERY OF THE HAND should be on the bookshelf of every surgeon who deals with injuries, infections, deformities or tumors of the hand.—*J. M. Bruner,* M.D.

CANCER, Second Edition, by *Lauren V. Ackerman,* M.D., and *Juan A. del Regato,* M.D. (St. Louis, C. V. Mosby Company, 1954. $22.50).

This is the second edition of a book which is gaining increased popularity among practicing physicians. As cancer becomes more prominent both in medical statistics and in the public mind, it is very practical that the authors should cover the subject in a single volume, rather than present their material in many articles and books.

I am sure that the authors need no introduction, for their stimulating quest for knowledge and their numerous publications have attracted national recognition.

They have taken each system and broken it down into anatomic subdivisions in preparation for giving complete coverage to all forms and locations of cancer. Each area is approached logically in short discussions of the anatomy, pathology and development of cancer in that particular site. Then the diagnosis, differential diagnosis, the various forms of treatment and the prognosis are presented in an orderly, compact fashion.

Technically, this is an easy book to read and it has clear and well-labeled illustrations. Although the various surgical and radiotherapeutic technics are not covered, there is an extensive list of references at the end of each chapter which covers all phases of medicine pertaining to cancer of the area with which that chapter is concerned.

Certainly this book is highly recommended as a reference for all practicing physicians. The information it contains is easily accessible and concise, and it pro-

vides the physician an unbiased presentation that he might otherwise be required to piece together after an exhaustive, time-consuming review of the literature.—*Robert P. Mason,* M.D.

Physical Diagnosis, Fifth Edition, by *Ralph H. Major,* M.D., and *Mahlon H. Delp,* M.D. (Philadelphia, W. B. Saunders Co., 1956. $7.00).

This is the fifth edition of a handy, compact textbook, first published in 1937 as a summary of Dr. Major's 15 years of teaching physical diagnosis to medical students at the University of Kansas. Dr. Delp, who has worked constantly with Dr. Major since 1937, has finally gained the honor of being listed as coauthor.

The opening chapters deal with the technics and art of history-taking, and include a typical format designed to satisfy the most exacting requirements. The section ends with an example of a case history taken by the prescribed method. Also in the first few chapters are discussions of pain and its differential diagnosis, accompanied by many excellent diagrams.

In general, the book concentrates on the chest, as do so many texts on physical diagnosis, and there are no more than general outlines of neurologic examination and extremity examination technics. For instruction in those latter procedures, the authors refer the reader to special books in those fields.

The chapters dealing with the examination of the lungs, blood pressure, heart and great vessels are complete, up to date and well illustrated. Segments of the lung, electrocardiographic correlates, etc. are shown.

The greatest worth of this book is in the emphasis it puts upon the value of physical diagnosis. It should be worth every student's effort to read it.—*Robert H. Nightengale,* M.D.

Dermatology, by *Donald M. Pillsbury,* M.D., *Walter B. Shelley,* M.D., Ph.D., and *Albert M. Kligman,* M.D., Ph.D. (Philadelphia, W. B. Saunders Co., 1956. $20.00).

Fresh and *alive* are the adjectives I should like to use in commenting upon this book, if they can properly be applied to any medical text. Unlike most others, this book is uncluttered. The authors themselves have done a considerable amount of original research which is included in many chapters—e.g., bacterial infections of the skin, and diseases of the eccrine and the apocrine sweat glands.

It was their policy in writing this text to avoid including material not of current significance, but merely of historical importance. Outmoded theory and discarded therapy have been deleted. Their evaluations regarding what to include are based on their own extensive clinical experience. As a result, although there are many areas in which their conclusions still are debatable and subject to alteration—e.g., regarding the treatment of acne by x-ray, or the use of radium plaques (regarding which they state that they have had little experience)—the book is nevertheless of tremendous practical value. The illustrations, so vital to a dermatologic text are excellent.

It was a pleasure to read this book. I recommend it enthusiastically to both non-dermatologists and dermatologists.—*S. Greenhill,* M.D.

Internal Medicine: A Physiologic and Clinical Approach To Disease, by *Robert P. McCombs,* M.D. (Chicago, The Year Book Publishers, Inc., 1956. $10.00).

This book purports to consider the subject of internal medicine in a correlative manner, stressing applied physiologic concepts of disease and therapy, and abandoning empiricism except in those instances where present knowledge is so scanty that it is the only means of attacking the problem. To accomplish his objective within the scope of a "handbook," the author has omitted all dubious or unproved theories, and has neglected the independent specialties of neuropsychiatry and electrocardiography.

The organization of the text is logical—i.e., disease of the heart is followed by discussions of hypertensive cardiovascular disease, renal disease, and body fluids and electrolyte balance. The chapters on cardiovascular disease are especially well written, and the physiologic concepts are well discussed. The references on infectious disease are especially fine and concise, particularly with respect to diagnosis and therapy.

The author has accomplished his purpose, within the limitations which he set for himself, and the book should prove a valuable addition to the general practitioner's library. It should serve the internist as a handy "quick reference."—*Samuel J. Zoeckler,* M.D.

Diagnosis and Treatment of Peripheral Vascular Disorders, by *David I. Abramson,* M.D. (New York City, Hoeber-Harper, 1956. $13.50).

An eminently clinical approach to the rapidly developing field of peripheral circulatory diseases characterizes this volume. The author is professor and head of the Department of Physical Medicine at the University of Illinois, and consultant in peripheral vascular disorders to the Chicago regional office of the Veterans Administration.

One of the features which will give this book particular appeal to the general practitioner is the author's avowed bias in favor of medical treatment rather than surgical measures. Trade names of drugs are used in the text, and the sources of these medications and appliances are given in an appendix.

The first section of the book deals with differential diagnosis and diagnostic procedures. The second section is devoted to a systematic presentation of the disorders affecting the arterial, venous and lymphatic systems, with emphasis on differential diagnosis and therapeutic procedures. Basic physiology, anatomy and pharmacology as they apply to peripheral vascular problems are outlined in the third section of the volume.

Numerous tables of differential diagnosis summarize the text. Illustrations are excellent, typography is above average, and the index is adequate.—*Herman J. Smith,* M.D.

Plan to attend the Annual Meeting of the Iowa State Medical Society, April 28-May 1, 1957, in Des Moines.

Woman's Auxiliary News

OUR PRESIDENT SAYS

Let us be grateful and thankful for a land of peace and plenty, and for our freedoms.

At this time, it is fitting for us to thank the committee chairmen and other leaders of our Auxiliary for the time and effort that they have so cheerfully given in planning programs and in sending out materials. If you have used a suggestion from one of the chairmen, let her know how valuable it proved to be.

If you have not chosen a project for your Auxiliary to work on, won't you survey your community to see whether there is a need that your group can meet? If yours is a model community that needs no Auxiliary project, let us hear about it, so that we can give it the credit which is its due.

When you make your Christmas lists, remember to plan on giving TODAY'S HEALTH subscriptions. Give donations in your friends' names to the AMEF or to the Auxiliary's Loan Fund. Give safety equipment to the older members of your family, as your Safety Chairman has suggested. Give a year's subscription to THE BULLETIN (just one dollar) to a new member of your Auxiliary, or to a member-at-large in an unorganized county.

Have you asked our central office in Des Moines to help you? If you have received such help, now is a fitting time for you to thank the staff there.

Are there girls from your community who are in training to become nurses or to enter other professional careers? Plan to remember them.

JANE KING
President

SAFETY

Make yourself safety conscious.
Make your family safety conscious.
Make your community safety conscious.
Make your state safety conscious.
Make your nation safety conscious.

We must all bend every effort to reduce the staggering number of accidents that claim the lives of the American people. In the past 20 years, 700,000 have been killed by traffic accidents alone! To prevent these tragedies, we must work at the local level to inform and educate the public and to promulgate safety consciousness.

The Safety Committee's program for county Auxiliaries was mailed with the September issue of the AUXILIARY NEWS to county presidents and to the safety chairmen who had been appointed up to that time. I hope that they will disseminate that information not only among Auxiliary members, but to the membership of any other groups to which they may belong. Each of us should get her family and neighbors so thoroughly interested that they will enlist ever more and more constructive workers for improved safety in various programs.

In the important lexicon of health, *safety* is a very potent word. Providing safety, teaching safety and practicing safety are big jobs. They can be accomplished if each one of us "puts his shoulder to the wheel." Let's start today, so that we may have a safer tomorrow.

Anyone desiring information regarding a safety program should feel free to write or call me.

MRS. RALPH E. HINES
3525 Witmer Parkway
Des Moines 10

NURSE RECRUITMENT AND LOAN FUND COMMITTEE

Our plans for the Careers Conference for Future Nurses' Clubs are progressing very well. Registration will be held at Drake University's new Harvey Ingham Building, at 28th and Forest Avenue, Des Moines, beginning at 9:30 a.m. on November 2. Following greetings from Professor George C. Huff, of Drake, the film "When You Choose Nursing" will be shown, through the cooperation of the Iowa State Department of Health. The Committee on Careers, together with the Student Nurse's Association is planning an excellent panel discussion on the various phases of nursing. The speakers will answer questions from the Future Nurses' Clubs. The winners of the song and slogan contest will be announced after the roll call of the clubs has been taken. All Future Nurses will then be capped and taken on a tour of Drake University at 11:00 a.m. Buses will be provided at 12:45 p.m. to take Future Nurses and Auxiliary members to the hospitals of their choice for lunch and for a tour of the facilities there. For Future Nurses and for Auxiliary members who will be coming to Des Moines from distances greater than 100 miles and who must arrive on Thursday evening, November 1, a certain amount of housing is available in doctors' homes.

When we committee members met with the directors of nursing at the four Des Moines hospitals, we were very warmly assured of the value of Future Nurses' Clubs. Applicants for entry into schools of nursing are becoming more numerous, and—more important—the girls who apply are certain that nursing is their chosen profession.

Two of our loan girls, Donna Brenneman, of Kalona, and Beatrice Ann Brown, of Burlington, completed nurse's training this fall.

Perhaps during the year you will find time to get in touch with at least one or two of the following girls who are in training with the help of our Loan Fund:

Antoinette Vanderberg, Orange City (University Hospitals, Iowa City)

Mary Oswald, Marcus (University Hospitals, Iowa City)

Nancy Jo Smith, Boone (University Hospitals, Iowa City)

Shirley L. Fryslie, Webster City (Iowa Methodist Hospital, Des Moines)

Freida LaVaughn Serr, Royal (Iowa Lutheran Hospital, Des Moines)

Patricia Huffman, Des Moines (Broadlawns-Polk County Hospital, Des Moines)

Sharilyn O'Hara, Spirit Lake (Mercy Hospital, Des Moines)

Judith E. Rogers, Story City (Iowa Methodist Hospital, Des Moines)

Myra Spears, Greenville (St. Joseph Mercy Hospital, Sioux City)

Margaret Grenko, Centerville (Mercy Hospital, Des Moines)

Constance Savage, Ottumwa (Iowa Methodist Hospital, Des Moines)

Frances McConnell, Washington (St. Luke's Methodist Hospital, Cedar Rapids)

Mrs. N. W. Irving, Jr.
Chairman

IN MEMORIAM

We are deeply saddened by the loss of our dear friend, Mrs. Richard Porter, of Des Moines. She will always be remembered for her sweet, kind and generous ways.

Members of the Black Hawk County Medical Auxiliary were deeply grieved to hear of the death of Mrs. T. F. Thornton, Sr., on September 6. She had been a loyal member for many years, and we are going to miss her friendly manner and cheerful smile.

The members of the Auxiliary as well as of the Medical Society are deeply grieved over the loss of Dr. Thomas L. Ward, of Arnolds Park, our Third District councilor. He was a staunch friend of the Auxiliary and gave it freely of his time and advice. He was loved and revered by his entire community, for he was completely dedicated to the practice of medicine and to serving his neighbors' needs. His many kindnesses and his unselfishness will long be remembered by his colleagues, friends and patients.

COUNTY AUXILIARIES

Clinton

The Auxiliary to the Clinton County Medical Society will sponsor its fifth annual Charity Ball on Saturday, December 1, at the Clinton Country Club, for the benefit of Jane Lamb Memorial and St. Joseph Hospitals, in Clinton, and the De Witt Community Hospital.

Mrs. Don F. Mirick and Mrs. George M. Ellison are general co-chairmen, and they are being assisted by the following committee chairmen: Mrs. J. J. Young, Mrs. J. F. Edwards, Mrs. V. W. Petersen, Mrs. E. P. Weih, Mrs. R. J. Nelson, Mrs. J. E. Norment and Mrs. R. E. Hill. Officers of the Auxiliary are Mrs. J. E. O'Donnell, president; Mrs. M. E. Barrent, vice-president; Mrs. J. H. Taylor, secretary; and Mrs. Leonard Neiken, treasurer.

Dallas-Guthrie

The Dallas-Guthrie Medical Auxiliary met in Adel on Thursday, September 20 for seven o'clock dinner at the Horse N' Buggy Inn. Eleven members and one guest were present. A member of the State Medical Society's Grievance Committee was the speaker at a joint session of the two-county medical society and the Auxiliary.

The cooperation of members was asked in promoting the patch-test program of the Iowa Tuberculosis Association which was planned for Dallas County. Nurse recruitment was generally discussed.

Mahaska

The Mahaska County Medical Auxiliary met on Wednesday, September 19, at the home of Mrs. LeRoy Catterson. Mrs. George Atkinson, the president, presided. Chairmen of committees on Safety, Civil Defense and Mental Health were appointed, and it was announced that all members are now subscribing to THE BULLETIN.

Although it held no regular meeting during the summer, the Mahaska Auxiliary participated in several projects. They were a tea for Future Nurses, at the YWCA on May 15, the Crippled Children's Clinic on June 7, the Red Cross booth at the Southern Iowa Fair, and another booth at that fair in which were displayed the Auxiliary's

award-winning poster from the state meeting, and an exhibit designed to sell subscriptions for TODAY'S HEALTH.

Polk

The members of the Polk County Medical Auxiliary, in conjunction with the members of the Medical Society, enjoyed a delightful fall dinner-dance at the Fort Des Moines Hotel on September 23. Ralph Zarnow and his band furnished the music, and an excellent floor show was provided.

The Auxiliary met for luncheon at the Standard Club, in Des Moines, on Friday, October 12. Mrs. Dwight C. Wirtz, the president, presided at the meeting which followed. Dr. Olin Elliott told of his experiences as a medical missionary in Alaska this past summer, and Miss Maurine Stanton, of the Adult Education Division of the Des Moines Schools, gave a demonstration of gifts for the holiday seasons. Mrs. Louis Noun and Mrs. William Morrissey were the hostesses.

Webster

Mrs. Arthur P. Echternacht, the president, presided at the October 2 morning meeting of the Woman's Auxiliary to the Webster County Medical Society, at the home of Mrs. Otto N. Glesne, in Ft. Dodge.

Mrs. C. H. Coughlan reported on the activities of the Legislative Committee, of which she is chairman. Mrs. Emerson B. Dawson reported upon the work of her Nurse Recruitment and Loan Fund Committee, and it was decided to send four Future Nurses' Club members to Future Nurses' Day at Drake University on November 2. Plans were also made for a tea at which the nurses attending the Iowa State Nurses Association meeting were entertained on October 28, in Ft. Dodge.

Mrs. A. E. Acher, Fifth District councilor, presented a certificate of award to the Webster County Auxiliary in token of the State Auxiliary's appreciation of its activities.

The fire logs all are blazing,
And the wood box, too, is full.
The apples all are bobbing,
And the taffy's set to pull.
Old pumpkin face is grinning,
And the popcorn pops with glee.
Soon we'll have Thanksgiving,
Then next a Christmas tree.
—Dean H. King

CONFERENCE OF STATE PRESIDENTS

The Conference of State Presidents, Presidents-Elect and National Chairmen of Standing Committees of the Woman's Auxiliary to the AMA met at the Drake Hotel, in Chicago, on October 1-3. Emphasis this year was placed on new and informative resource materials.

The purpose of the Conference was self-education and strengthening of the friendly bond between state officers working together with the single idea: "Health Is Our Greatest Heritage," which had been the theme of the Conference for State Representatives. Through guest speakers and panel discussions, a great deal of new and useful material was offered for the numerous state and national projects. Panel members presented unique and interesting ways for utilizing both old and new ideas.

Mrs. Dean H. King, president of the Woman's Auxiliary to the ISMS, chose to be a member of the mental health panel because of our state's interest and activities in mental health, and she presented our Auxiliary's project "Milestones in Marriage."

The Conference, by providing for an exchange of ideas and a sharing of problems, helped committee chairmen to get a new and broader perspective on state and county work. President-elect of the Woman's Auxiliary to the AMA, Mrs. Paul C. Craig, said, "The realities of tomorrow come from the thoughtful consideration of today."

Iowa was honored to have Mrs. J. F. Gerken, president-elect of its State Auxiliary, invited to sit at the speaker's table during the luncheon meeting at which Dr. David B. Allman, of Atlantic City, president-elect of the AMA, gave the principal address.

THE CHATTER BOX

Dear Girls:

We thought it would be lots of fun to have a column in our *Auxiliary News* devoted strictly to the latest social chit-chat.

We should love to have your items each month about parties, trips, births, etc. This is one way all of us can keep in touch with our friends throughout the state.

We'll be waiting to hear from you!

Your Editors

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. Dean H. King, 301 E. 4th Street, Spencer
President-Elect—Mrs. J. F. Gerken, Waterloo
Secretary—Mrs. Robert P. Mason, 5818 Chamberlain Drive, Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

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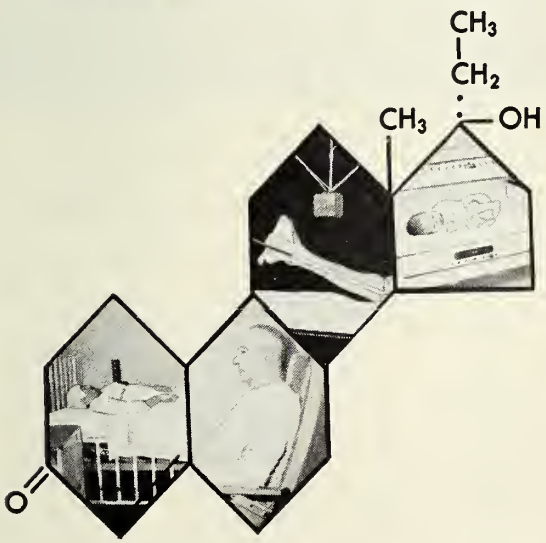
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The Month in Washington

Washington, D. C.—In addition to helping states make monthly public assistance payments to certain indigent persons, the federal government for a number of years also has contributed to the cost of their medical care. Because the grants formula is somewhat complicated, and the amount of medical care varies with the states, this U. S. contribution cannot be fixed definitely. It is estimated at about $90,000,000 a year.

About a third of the states now deposit these federal grants—which must be matched 50-50—in a separate fund, from which the medical care costs are paid directly to the vendors, such as physicians, dentists, hospitals, nursing homes and druggists. The remaining two-thirds of the states include medical care costs in monthly checks to the indigent, and expect those people to pay their own medical bills.

But beginning next July 1, this U. S.-state medical care arrangement is going to be drastically altered.

For one thing, the U. S. will increase its payments from the current $90,000,000 a year to between $200,000,000 and $300,000,000. For another, *all* medical care money under the new program will be put into a separate fund, from which the indigents' medical bills will be paid, in one way or another, by the state itself.

It is true that in some states the new program will not have much effect. This will be the case in those states that already have a substantial medical care program and see no reason for increasing it and in those states that are unable to raise the matching money.

But the amount of money potentially available to each state is significant, and in most states the change-over from the old to the new system will have an important effect on physicians and other vendors of medical care. For example, eight states will have "new" medical care funds in excess of $10,000,000, if they put up half the money. California's potential fund is $27,000,000 and New York's and Texas's more than $18,000,000 each.

Before state welfare directors can start operating under the new program, they will have to decide (a) whether they will require doctors to agree to a fee schedule, if one is not already in operation in the indigent care program, and (b) how the doctors will be reimbursed (whether through their societies or other mechanisms, or directly by the government). Some state welfare officials already have approached state medical societies to talk over the situation.

(U. S. contributes to indigents in only four categories—the aged, dependent children, the blind and the disabled. For their medical care, it will offer



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states $3 per month for each adult and $1.50 for each child—money which the state must match. It is out of these funds that payments will be made for medical care.)

NOTES

Because most applicants did not supply enough information, the council in charge of grants for medical research facilities approved only a handful of projects at its first meeting. Although $30,000,000 was available, only $764,159 was allocated. Money went to seven institutions. However, the expectation is that the fund will be just about exhausted at the December meeting of the council, as more than 250 hospitals, schools and laboratories have asked for money.

First head of the new National Library of Medicine is the man who steered the Armed Forces Medical Library through the last seven troubled years—Col. Frank B. Rogers. He is on loan to PHS, which is in charge of the new institution to be built up around AFML.

Hearings will be held on federal aid to medical education, probably in December, by the House Interstate and Foreign Commerce Committee. The expert panel system will be used, instead of lone witnesses. Currently, the Committee staff is analyzing information received in response to questionnaires sent out to about 60 organizations interested in medical education.

A six-man advisory committee, named by Secretary Folsom, is attempting to work up suggestions that will help hospitals improve care and reduce costs. Some possibilities: central cafeterias for ambulatory patients, light housekeeping work done by some patients themselves.

Regional Small Business Administration offices now are taking applications for loans to three types of health facilities—hospitals, nursing homes, and medical and dental laboratories. Institutions must be "small" and must be run for private profit.

IMMUNOLOGY

A symposium on immunology is to be presented by the Milwaukee Academy of Medicine at the Brooks Memorial Union, on the campus of Marquette University in Milwaukee from 9 until 4 on Saturday, December 1. All physicians are welcome to attend, and there will be no registration fee. Reservations should be sought from the Academy, 561 North Fifteenth Street, Milwaukee 3.

The faculty will consist of Dr. Frank J. Dixon, Jr., of the University of Pittsburgh, a pathologist; Dr. T. N. Harris, of the University of Pennsylvania, a pediatrician; Dr. William B. Sherman, of Columbia, an internist; Dr. Carl V. Moore, dean of the Washington University School of Medicine; and Dr. Theodore L. Squier, of Marquette, an internist. Programs can be had on request.

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STUDY OF CARDIAC FARMER ENDS FIRST YEAR

A report on the Cardiac in Agriculture Pilot Study that is in operation in Washington County, Iowa, indicates that about 40 patients were interviewed and examined during the first year of the program.

The program is the first of its type in the nation, and experts throughout the country are watching the results with considerable interest. It is designed to determine what adjustments farm people with heart disease can make to insure their ability to lead normal lives, either in or out of farming. A similar program for industrial workers has been in existence for a number of years, but this is the first one for farm workers.

During the past year, 32 patients were examined by Dr. Joseph P. Stojkovic, of SUI, and 29 were interviewed by members of the Cardiac in Agriculture "team," consisting, in addition to Dr. Stojkovic, of Dr. L. E. January, professor of internal medicine, Mr. Warren Van Eschen, state vocational rehabilitation supervisor, and Mr. Tom Robb, Washington County extension director.

Recommendations made to the patients included either retirement from farm work, or change in work habits so that the patients might avoid strain upon their hearts.

With the approval of the Washington County Medical Society, township health chairmen from the Farm Bureau's women's organization are mailing information on the program to all farm people, in the hope that all farm residents with heart disease will report to their family physicians and the results of the pilot study can be made conclusive. Those with heart ailments are asked to report to their own doctors, and those family physicians refer them to University Hospitals for complete examination. If the need exists, the "team" meets with the patient and the family doctor to make recommendations on the curtailment of his more strenuous activities.

The Iowa Farm Bureau Federation is preparing to make a TV film reviewing the Washington County Cardiac in Agriculture program.

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AMERICAN COLLEGE OF OB. & GYNEC.

Two hundred round table discussions and one hundred breakfast conferences will highlight the meeting of the American College of Obstetrics and Gynecology, to be held at the Palmer House, in Chicago, November 7-9. Three panel discussions will be offered, one in anesthesia, one dealing with problems connected with adoption, and one on the pathology of the breast. In the latter, the audience will hear experts from related fields as well as leaders in obstetrics and gynecology. Formal papers will be presented on the prediabetic state, the use of hypotensive drugs in obstetrical trauma, etc.

An innovation this year will be "Consultation Hours," held four times during the meeting. On each occasion, a panel of three outstanding specialists will undertake to answer all the questions that are put to them.

The American College, formerly the American Academy of Obstetrics and Gynecology, consists of 4,000 specialists and was incorporated in 1951. The section chairman for Iowa is Dr. Cecil W. Seibert, of Waterloo, and the vice-chairman is Dr. Parker K. Hughes, of Des Moines.

SHORT COURSES AT KU

The Postgraduate Course in Obstetrics that is to be held on November 1, 2 and 3 at the University of Kansas Medical Center in Kansas City, Kansas, will stress the clinical application of some recent studies on the causes and effects of abortions, the role of the endocrine glands in pregnancy, the Rh factor and other incompatabilities, and the management of obstetric shock. The guest instructors will be Dr. Allan C. Barnes, of Western Reserve; Dr. Emmett D. Clovin, of Emory; S. Leon Israel, of the University of Pennsylvania; Dr. Edith Louise Porter, of the University of Chicago; Dr. Duncan E. Reid, of Harvard; and Dr. Melvin A. Roblee, of Washington University. The registration fee is $35.

Symposium-type discussions have been planned for the Postgraduate Course in Internal Medicine, to be offered on November 12, 13, 14 and 15 at the KU Medical Center. Twelve guest instructors of national reputation will participate and 22 members of the faculty at the University of Kansas School of Medicine are on the program.

The general subjects to be taken up include rheumatic disease, disease of the adrenal gland, medical management of malignant disease, infectious diseases and collagen disease. The registration fee is $50.

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November 1 .....Protective Measures in Control of Occupational Hazards
November 8 Psychological Problems of the Worker in Relation to Supervision
November 15 .....Management of Heart Patients
November 22 .....The Aging Worker

"Chats With the Champs"

November 29 ..Jumping Events—Track and Field

WSUI—Iowa City, Iowa
Monday at 3:45 p.m.

"Superstition or Science"

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November 12 ..... Scurvy
November 19 ..... Ephedrine
November 26 .....Tonics and Home Remedies

TELEVISION

KGLO-TV—Mason City, Iowa
Mondays at 3:30 p.m.

November 5 .....Nervous Breakdowns
November 12 .....Accident Proneness
November 19 .....Pediatric Heart Surgery
November 26 ....Emergency Care in the Hospital

KTIV-TV—Sioux City, Iowa
Saturday at 12:00 noon

November 3 ..... Gallbladder
November 10 .....Nervous Breakdown
November 17 .....Accident Proneness
November 24 .....Pediatric Heart Surgery

KQTV—Fort Dodge, Iowa
Monday at 7:30 p.m.

November 5 ..... Menopause
November 12 ..... Gallbladder
November 19 .....Nervous Breakdown
November 26 .....Accident Proneness

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:30 p.m.

November 4 .....Blood Typing
November 11 ..... Menopause
November 18 ..... Gallbladder
November 25 .....Nervous Breakdown

KWWL-TV—Waterloo, Iowa
Tuesday at 11:30 a.m.

November 6 ..... Radiology
November 13 .....Later Years
November 20 .....Varicose Veins
November 27 ..... Psychiatry

The foregoing schedules are subject to change at the discretion of the station managers.

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TUMOR CONFERENCE

Iowa Division, American Cancer Society, and
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University Hospitals, Iowa City

Friday, December 7

9:10 a.m. Gynecologic Cancer—Helpful Hints in Diagnosis. Dr. W. C. Keettel

9:30 a.m. What Therapy Can Do for Female Pelvic Cancer. Dr. John H. Randall

10:00 a.m. Cancer of the Breast: a Quarter Century at University Hospitals. Dr. R. C. Hickey

10:20 a.m. Palliation of Advanced Breast Cancer. Dr. Robert T. Tidrick

11:00 a.m. Symposium on Leukemias and Lymphomas. Dr. W. M. Fowler, Dr. John Carter and Dr. H. B. Elkins

1:15 p.m. The Pediatrician Discovers a Mass—What Then? Dr. John C. MacQueen

1:35 p.m. The Surgeon and the Child With Cancer. Dr. John Gius

2:00 p.m. Urological Diagnostic Hints. Dr. R. G. Bunge

2:20 p.m. Recent Changes in Therapy of Cancer of the Gastrointestinal Tract. Dr. Rubin Flocks

2:50 p.m. The Place of Isotopes in Cancer Care: Present and Future Potentials. Dr. Titus Evans

3:10 p.m. Lesions Produced by Aminonitriles. Dr. I. V. Ponseti

4:10 p.m. SPECIAL LECTURE: Viruses and Cancer. Dr. Richard E. Shope, Rockefeller Hospital for Medical Research, New York City

Saturday, December 8

9:00 a.m. The Dermatologist and Cutaneous Cancers. Dr. Ruben Nomland

9:20 a.m. Special Problems in Cutaneous Cancer for the Surgeon. Dr. Sidney E. Ziffren

9:50 a.m. Shadow in the Lung—the Internist. Dr. Paul Seebohm

10:10 a.m. Shadow in the Lung—the Surgeon. Dr. J. L. Ehrenhaft

11:00 a.m. SPECIAL LECTURE: Bone Cancer, With Special Reference to Cartilaginous Tumors. Dr. Granville A. Bennett, professor of pathology, University of Illinois College of Medicine, Chicago

DURATION OF OXYGENATION CRITICAL IN RLF

Though earlier studies had indicated that the danger of retrolental fibroplasia depended upon the concentration of oxygen administered to premature infants, it is now reported that the duration of oxygenation is the critical factor. Such babies should be given additional oxygen only in emergencies, and then for as brief periods of time as possible, according to an article in AMA Archives of Ophthalmology* by V. Everett Kinsey, Ph.D., and June Twomey Jacobus, of the Kresge Eye Institute, Detroit, and F. M. Hemphill, Ph.D., of the University of Michigan.

These researchers report that restricting oxygen not only lessens the chances of retrolental fibroplasia, but also appears to have no effect on an infant's chances of survival.

Their paper is based on a cooperative study made in 18 hospitals between July 1, 1953, and June 30, 1954, in an attempt to clear up questions about oxygen's effect on RLF and mortality rates. Out of 586 premature infants who were followed 2½ months or longer, 53 had been given oxygen for 28 days, the standard procedure at the time. The remaining 533 were given oxygen only when breathing difficulty occurred.

On a percentage basis, twice as many infants in the routine-oxygen group developed the early stages of the disease as did infants in the curtailed-oxygen group. The rate of progression to the later scarring (cicatricial) stages which produce permanent damage to the eyes was 3½ times greater in the routine-oxygen group than in the curtailed-oxygen group.

The rate for both active and cicatricial stages increased as the duration of exposure to oxygen increased, but was not affected by the concentration. Rate of withdrawal from oxygen did not appear to play a role, the researchers report.

The incidence was much greater in infants of multiple birth (twins or triplets) than of single birth. The authors think that this phenomenon may be related to the degree of initial oxygen-saturation of the blood. A multiple-birth infant may have less oxygen in his blood at birth, and when he is given additional oxygen, there may be a greater insult to the blood vessels of the eye.

The study was supported by grants from the National Institute for Neurological Diseases and Blindness of U.S.P.H.S., the National Foundation for Eye Research, and the National Society for the Prevention of Blindness.

* Kinsey, V. E., Jacobus, J. T., and Hemphill, F. M.: Cooperative study of retrolental fibroplasia and use of oxygen. AMA Arch. Ophth., 56:481-543, (Oct.) 1956.

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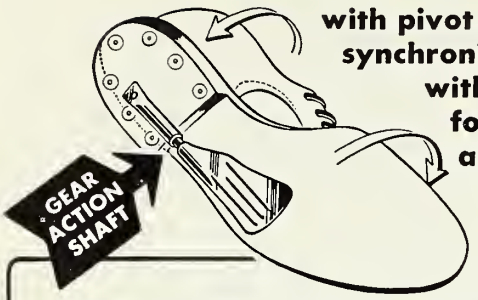
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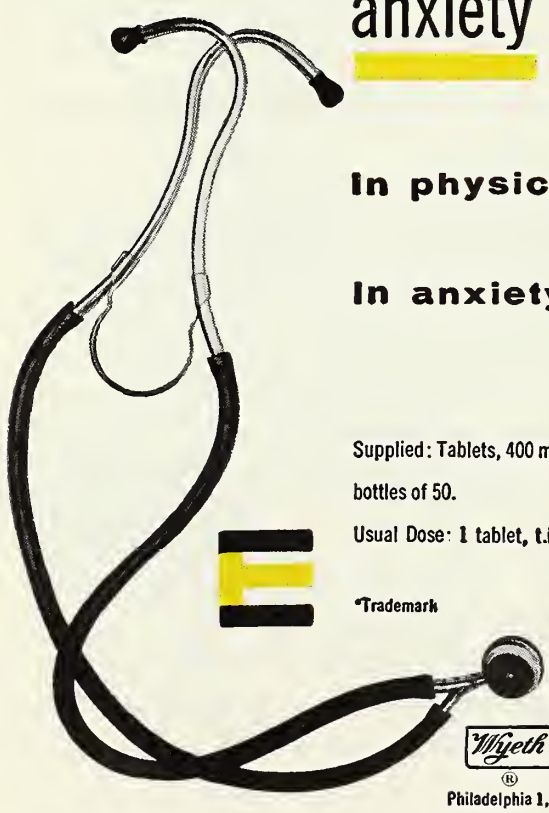
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*Goodman, L. S., and Gilman, A.: The Phormacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 847.

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THE AMA AND ITS MEMBERS

Following are some results of an AMA survey of its own member doctors:

Only half of the physicians in this country report that they are active in county and state medical societies. About the same number think of their county and state organizations as separate from the AMA, and have no clear idea of what the national dues are. Fifteen per cent are under the impression that membership is compulsory.

Fifty per cent of physicians attend most meetings of their local or county societies. Yet 6 per cent say they attend no meetings, 16 per cent very few, 9 per cent some, and 9 per cent half. The problem of meeting attendance appears to be greatest in the East, where only 38 per cent of physicians say they attend most meetings. Western states evidently chalk up the greatest attendance, since 61 per cent say they turn out for meetings. Central and Southern states fall midway between, with 54 per cent and 56 per cent, respectively. Only 35 per cent of internists say they attend most meetings, as contrasted with an average of 50 per cent for all other physicians. Internists also least often say they voted in the society's most recent election of officers.

Twenty-four per cent of the individual physicians surveyed were critical of medical organizations, or at least said that the public looks upon them as doctors' unions or medical trusts.

The report, published in NORTHWEST MEDICINE,* concludes with the following commentary:

"During the past few years, medical organization has worked hard to regain the confidence and good will of the public. Now it is obvious that some concentrated internal public relations efforts are necessary in order to rekindle physicians' enthusiasm and interest in medical organizations. Larger numbers of physicians ought to be pulling their own weight in their own societies, rather than dragging their heels and allowing a few men to serve as standard bearers. Medical organizations must concentrate on doing a better job of informing their own members about official activities, policies and services.

"Physicians, in an effort to revamp their service programs for the public and to stave off a government medical program, have taken it on the chin from many critics. Most have accepted just criticism humbly and moved ahead to correct sources of dissatisfaction. Perhaps it is time now to stop being on the defensive—to help physicians regain a sense of pride in the medical organizations to which they belong.

"An organization whose aims are to promote the science and art of medicine and the betterment of public health need not apologize for its efforts to advance these noble objectives."

* Need for Knowledge (Editorial), NORTHWEST MEDICINE, 55:1057-1058, (Oct.) 1956.

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Possibly some variations in deductibles will also be permitted so that the subscriber will have an opportunity to choose among several plans of diagnostic care at variable costs.

This plan will not be introduced as a cure-all for all patients' ills and surgical conditions. A rather substantial portion of "arm chair" health-care proponents keep telling people that America needs preventive medicine, the implication being that if everyone had a complete physical examination every six months (at someone else's expense, yet), all sickness would be prevented. We in Blue Shield are not so gullible as to think that an approach of that sort will eliminate the emergency appendectomy, cure all cases of diabetes or eliminate all coronary thromboses. Furthermore, if 165,000,000 people were to be examined semi-annually (a total of 330,000,000 examinations per year), physicians would have no time in which to attend the sick and injured, or to perform the research that is essential to the improvement of health standards in this country.

Nevertheless, we believe that the people should be encouraged to have certain diagnostic services performed when they feel the need, and that part of the financial burden incident to such care should be borne by insurance. Such an arrangement would, among other things, prevent the patient's putting pressure upon the doctor to request his admission to a hospital for such services so that his Blue Cross contract would cover the costs.

The proposed diagnostic coverage will actually result in a saving for the public, without reducing the quality of care.

PERSONALS

Dr. Lois S. Eikelberry discontinued her practice at West Branch on September 18, and went to Texas to join her husband, who is a captain in the Army Medical Corps.

The officers elected by the Iowa Academy of General Practice at its annual meeting in Des Moines on September 12 include **Dr. Donald H. Kast,** Des Moines, president-elect; **Dr. V. L. Schlaser,** Des Moines, secretary-treasurer; **Dr. W. A. Castles,** Dallas Center, director; **Dr. Ralph Moe,** Griswold, delegate to the American Academy of General Practice; and **Dr. Floyd Burgeson,** Des Moines, alternate delegate. **Dr. C. A. Nicoll,** of Panora, took office as president, succeeding **Dr. W. M. Sproul,** of Des Moines.

Dr. Floyd D. Christensen, of Remsen, returned home on September 15 and resumed part-time practice after a week's stay in a Sioux City hospital and a week of treatment in Chicago. He has an eye malady.

Dr. John T. McCoy, of Cedar Falls, who is in charge of the cardiology section of the U. S. Naval Hospital at Philadelphia, has recently been appointed commander in the U. S. Naval Reserve.

During the third week of September, **Dr. Charles L. Seaman** returned to Cherokee from Omaha, where he had received attention from a lung surgeon. He had been severly injured in a fall on August 26.

On September 28, **Dr. Ralph A. Dorner,** a Des Moines surgeon, was granted an honorary doctor of science degree by Carthage College, in Carthage, Illinois. He is an alumnus of the school.

Dr. D. C. Conzett, of Dubuque, a past president of the Iowa State Medical Society, has been made membership chairman for Iowa of the World Medical Association's U. S. Committee.

On September 21, **Dr. James D. Mahoney,** of Council Bluffs, was appointed associate professor of psychiatry and acting director of the Depart-



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ment of Psychiatry and Neurology at Creighton University, in Omaha. In addition to carrying on his private practice, Dr. Mahoney has taught at Creighton since 1945.

Dr. Lawrence D. Amick, of Sac City, who is a resident in physical medicine at the Mayo Clinic, in Rochester, Minnesota, read a paper on muscular dystrophy at a meeting of the American Association of Electromyography in Atlantic City on September 9. That work is the thesis with which Dr. Amick fulfilled one of the requirements for a master's degree that he is to receive from the Graduate School of the University of Minnesota next April.

Dr. A. W. Glaess, an Illinois radiologist who practices at Jane Lamb Memorial Hospital in Clinton, and elsewhere in eastern Iowa, was hospitalized at Michael Reese, in Chicago, on September 15 with poliomyelitis. **Dr. George L. Podlusky**, of Chicago, who studied medicine at Danzig and Munich, is replacing him at Jane Lamb temporarily.

At the annual postgraduate course of the Page County Medical Society, held at Shenandoah on September 26, **Dr. James A. Clifton**, assistant professor of internal medicine at SUI, spoke on diseases of the gastrointestinal tract, **Dr. H. O. Swann**, of the Department of Obstetrics and Gynecology at SUI, spoke on pelvic pain, and **Dr. Max C. Peperich**, assistant professor of psychiatry at SUI, discussed psychiatry for the general practitioner.

Dr. Frank R. Peterson, a Cedar Rapids surgeon, was one of 14 doctors who were made fellows of the Mississippi Valley Medical Society on September 27, at the group's twenty-first annual meeting in Chicago.

In mid-September, **Dr. R. T. Smith**, of Granger, underwent surgery.

Following two years in the Air Force, during which he was chief of the Section of Urology in the hospital at Keesler Field, Mississippi, **Dr. R. F. Kruse** has joined **Dr. F. Harold Entz** in practice at Waterloo. Dr. Kruse is a graduate of the College of Medicine at SUI and received his specialty training there.

Construction work has begun on a $30,000 building for the Le Mars Clinic, and it is expected that the structure will be ready for occupancy by the middle of next year. The four men for whom it is being built are **Drs. W. L. Downing, H. L. Vander Stoep, L. C. O'Toole** and **S. C. Lindell.**

Drs. J. R. and **E. D. Miller** have redecorated and considerably enlarged their suite of offices at Wellman. They now occupy a total of 12 ground-floor rooms.

In Cherokee, **Drs. James H. Wise, J. F. Lawlor** and **H. J. Fishman** have moved into a new $81,500 building which includes an x-ray department, an emergency surgery and a pharmacy.

Dr. R. V. Daut, of Davenport, has been invited to address a conference of urologists in Dublin, Ireland, next spring.

Dr. A. J. Havlik, of Tama, attended a three-day symposium on "The Medical Aspects of Total War" at Great Lakes, Illinois, late in September.

Dr. and Mrs. Ray A. Fox, of Charles City, started October 10 on a 46-day around-the-world plane tour sponsored by the International College of Surgeons. Dr. Fox, together with the other surgeons in the party, will attend postgraduate clinics in Japan, Formosa, Hong Kong, the Philippines, Thailand, India, Iran, Turkey and Greece.

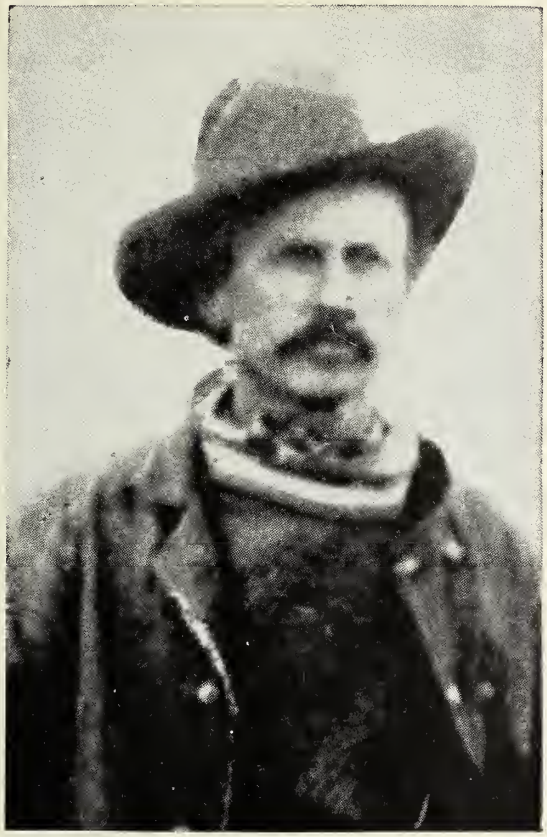
At the dedication, on October 7, of the Cedar Rapids elementary school named for the late **Dr. Arthur W. Erskine**, the speakers included **Dr. Edwin C. Ernst**, of St. Louis, past president of the Radiological Society of North America, **Dr. W. Edward Chamberlain**, of Philadelphia, president of the American Roentgen Ray Society, **Dr. Benjamin H. Orndoff**, of Chicago, past president of the American College of Radiology, and **Dr. James V. Prouty**, of Cedar Rapids, an associate of Dr. Erskine's.

Platform guests included **Dr. C. L. Gillies**, of Iowa City, **Dr. T. A. Burcham**, of Des Moines, **Dr. B. T. Whitaker**, of Boone, **Dr. H. T. Spilman**, of Ottumwa, **Dr. J. T. McMillan**, of Des Moines, **Dr. Siegmund Singer**, of Ottumwa, **Dr. C. H. Stark**, of Cedar Rapids, **Dr. J. R. Dewey**, of Schaller, **Dr. Harold Morgan**, of Mason City, and **Dr. Felix Hennessey**, of Calmar.

A scroll of merit was presented by the American Society of Clinical Pathology to **Dr. F. H. Lamb**, of Davenport, in Chicago on October 9, "for long and distinguished service to pathology and to the Society" and for service in almost all of the offices of the organization.

The citation mentioned that Dr. Lamb had been responsible for the founding of the Society's annual tumor seminar 22 years ago, was one of the organizers of the American Board of Pathology, served 14 years as a member of that important examining group, and was president of the College of American Pathologists for three years.

At the September 19 meeting of the Lee County Medical Society, in Ft. Madison, **Dr. A. L. Sahs**,



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General Surgery, One Week, February 11
General Surgery, Two Weeks, April 23
Surgical Anatomy & Clinical Surgery, Two Weeks, March 4
Basic Principles in General Surgery, Two Weeks, January 14
Fractures & Traumatic Surgery, Two Weeks, November 26

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, February 11
Vaginal Approach to Pelvic Surgery, One Week, February 4
General & Surgical Obstetrics, Two Weeks, February 25

MEDICINE—Electrocardiography & Heart Disease, Two-Week Basic Course, March 11
Gastroenterology, Two Weeks, May 13
Dermatology, Two Weeks, May 6
Gastroscopy, Two Weeks, March 18

RADIOLOGY—Diagnostic X-Ray, Two Weeks, November 26
Clinical Uses of Radioisotopes, Two Weeks, May 6

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head of the Department of Neurology at SUI, spoke on "The Neurologic Examination."

On September 5, **Dr. Robert Hardin,** of the Department of Internal Medicine at SUI, addressed the Southwest Iowa Medical Society, in Cresco; on September 11, he spoke at a meeting of the Hardin County Medical Society, in Iowa Falls; and on September 20, he spoke at a meeting of the Kossuth County Medical Society, in Algona. His topic was diabetes mellitus.

At the November 6 meeting of the Wapello County Medical Society, to be held following a 6:30 dinner at the Ottumwa Hospital, **Dr. Lewis E. January,** professor of internal medicine at SUI, will speak on "The Management of Rheumatic Heart Disease in Adults."

Dr. John W. Eckstein, assistant professor of internal medicine at SUI, has received a grant of $22,000 from the National Heart Institute of U.S.P.H.S. It is to cover a period of three years, and is intended to support his studies in venous physiology.

Dr. J. Maclean Smith, assistant professor of internal medicine at SUI, has been notified of the renewal of his grant of $10,000 from U.S.P.H.S. for his studies of staphylococcal infections in mice.

Dr. Mary Elizabeth Godfrey, of Oakdale, has been appointed Trudeau Society fellow at the Infectious Disease Laboratory in Iowa City for a period of one year.

From September 16 to 21, **Dr. William B. Bean,** head of the Department of Internal Medicine at SUI, was visiting lecturer at the College of Medicine at the University of Miami, in Miami, and at the Mt. Sinai Hospital there.

Dr. William Goddard, of the Department of Obstetrics and Gynecology at SUI, addressed the October 9 meeting of the Cerro Gordo County Medical Society, at the Hanford Hotel in Mason City, on "Diagnosis and Treatment of Cervical and Endometrial Carcinoma."

Dr. P. E. Stuart, of Nashua, a Life Member of the Iowa State Medical Society, was admitted to Cedar Valley Hospital on September 15 for treatment of arterial blood clots, one below and another above one of his knees. On September 23, he was transferred to St. Mary's Hospital, Rochester, Minnesota, and subsequently underwent surgery.

At the meeting of the Scott County Medical So-

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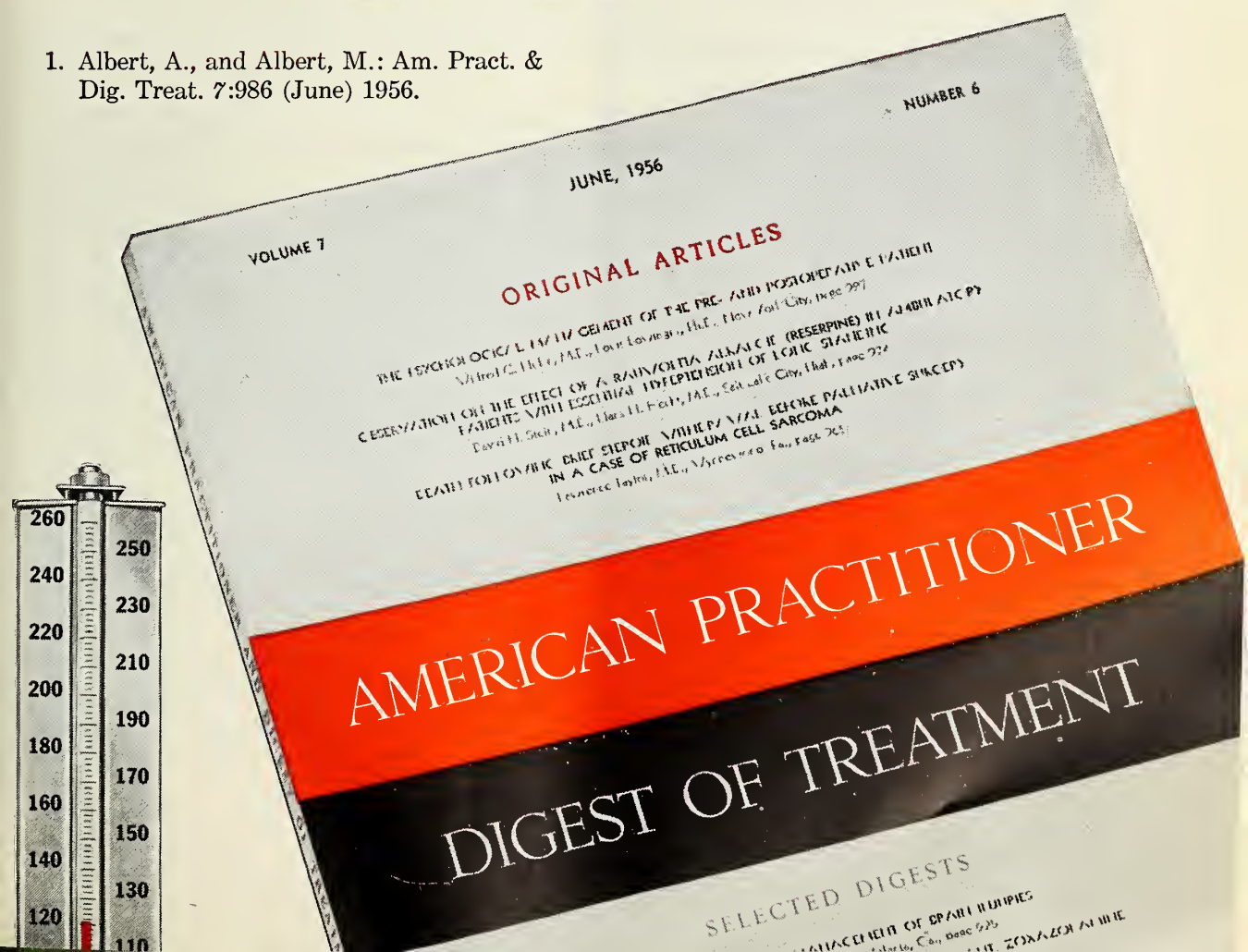
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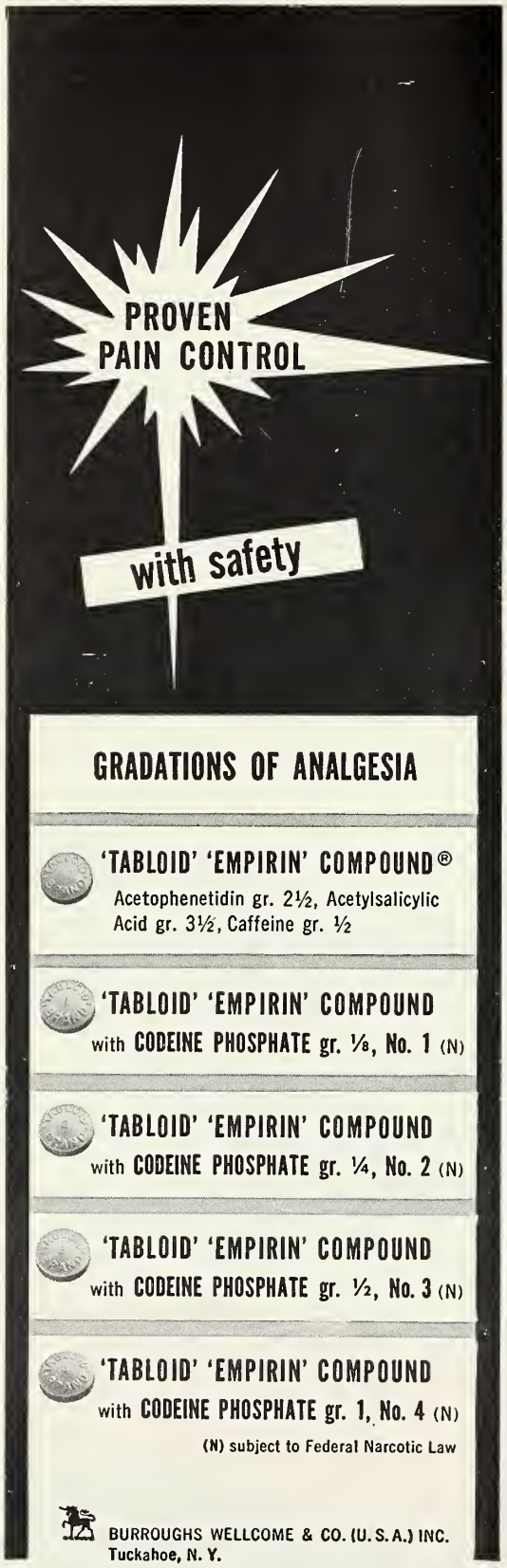
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1. Albert, A., and Albert, M.: Am. Pract. & Dig. Treat. 7:986 (June) 1956.





ciety to be held at 7:30 p.m. on November 6 at the Outing Club, in Davenport, **Dr. Edward H. Rynearson**, chief of the Section of Metabolic Diseases at the Mayo Clinic, in Rochester, Minnesota, will present a paper on the topic "Problems of the Functional Patient." Doctors from the surrounding area are cordially invited to attend.

At the September 26 meeting of the Marion County Medical Society, in Knoxville, **Dr. Lloyd J. Gugle**, an Ottumwa internist, spoke on "The Role of the Electrocardiogram in Clinical Medicine." A good representation of the membership were present, and there were guests from surrounding counties.

At the October 9 meeting of the Dubuque County Medical Society, held at the Dubuque Golf and Country Club, **Dr. Raymond G. Bunge**, professor of urology at SUI, spoke on the topic, "Sex Chromatin Test in Clinical Practice."

At the annual meeting of the Iowa Division of the American Cancer Society, in Des Moines on October 14, **Mr. H. B. Hook**, of Davenport, was elected to succeed **Dr. S. F. Singer**, of Ottumwa, who has been president of the organization for the past two years. The new vice-president is **Dr. Cecil W. Seibert**, of Waterloo, and **Dr. J. R. Dewey**, of Schaller, and **Dr. H. W. Morgan**, of Mason City, were re-elected secretary and chairman of the board, respectively.

The following physicians were elected or re-elected to the board of directors of the Iowa Division of the American Cancer Society: **Dr. R. F. Birge**, Des Moines; **Dr. A. L. Murphey**, Fredericksburg; **Dr. Donald C. Koser**, Cherokee; **Dr. E. M. Limbert**, Council Bluffs; **Dr. R. C. Hickey**, Iowa City; **Dr. Kenneth J. Gee**, Shenandoah; and **Dr. H. E. Stroy**, Osceola.

The following M.D.'s were given national citations for service to the organization. *Ten Year Awards*: Dr. Cecil W. Seibert, Waterloo; **Dr. E. G. Zimmerer** and Dr. R. F. Birge, Des Moines; Dr. J. R. Dewey, Schaller; Dr. S. F. Singer, Ottumwa; and **Dr. A. C. Starry**, Sioux City. *Five Year Awards*: **Dr. John F. Sulzbach**, Burlington; **Dr. Donovan F. Ward** and **Dr. Robert E. Petersen**, Dubuque; and **Dr. L. J. O'Brien**, Ft. Dodge.

Members of the Union County Medical Society have begun a series of medical-forum radio broadcasts over Station KSIB (1520 kilocycles) at Creston. **Dr. H. J. Peggs** says that the response, in the form of questions for the doctors to answer, has indicated a great deal of public interest, and since the station is a relatively powerful one (1,000 watts), the programs are being received in surrounding counties as well as in Union. The time of the broadcasts is 8:30-9:00 a.m., each Thursday.

At the Dubuque Golf and Country Club, at 7:30 p.m. on November 13, **Donalee Tabern, Ph.D.**, head of the radiotherapeutic department of Abbott Laboratories, will address the Dubuque County Medical Society on "The Clinical Use of Radioisotopes."

Dr. Lloyd F. Sherman, of Minneapolis, will discuss common proctologic problems and will show a movie on the subject at the meeting of the Cerro Gordo County Medical Society which will be held at the Hanford Hotel, Mason City, at 6:30 p.m. on Tuesday, November 13, Visiting physicians are invited both to the dinner and to the meeting.

At a rather informal and exploratory meeting of about a dozen Des Moines physicians, held during September, it was decided that an Iowa Society of Industrial Health and Occupational Medicine should be formed; a group of men were delegated to draw up a tentative constitution; and an organizational meeting was set for October 29. Three of the physicians currently active in the project are **Dr. Verne L. Schlaser,** 711 E. Locust Street, **Dr. C. Harlan Johnson,** 4820 Grand Avenue, and **Dr. Arnold Nelson,** 811 Savings & Loan Building. They will be glad to hear from all doctors who do considerable amounts of occupational medicine, and can supply them up-to-date information about the aims of the new group and about the progress that has been made towards getting it under way.

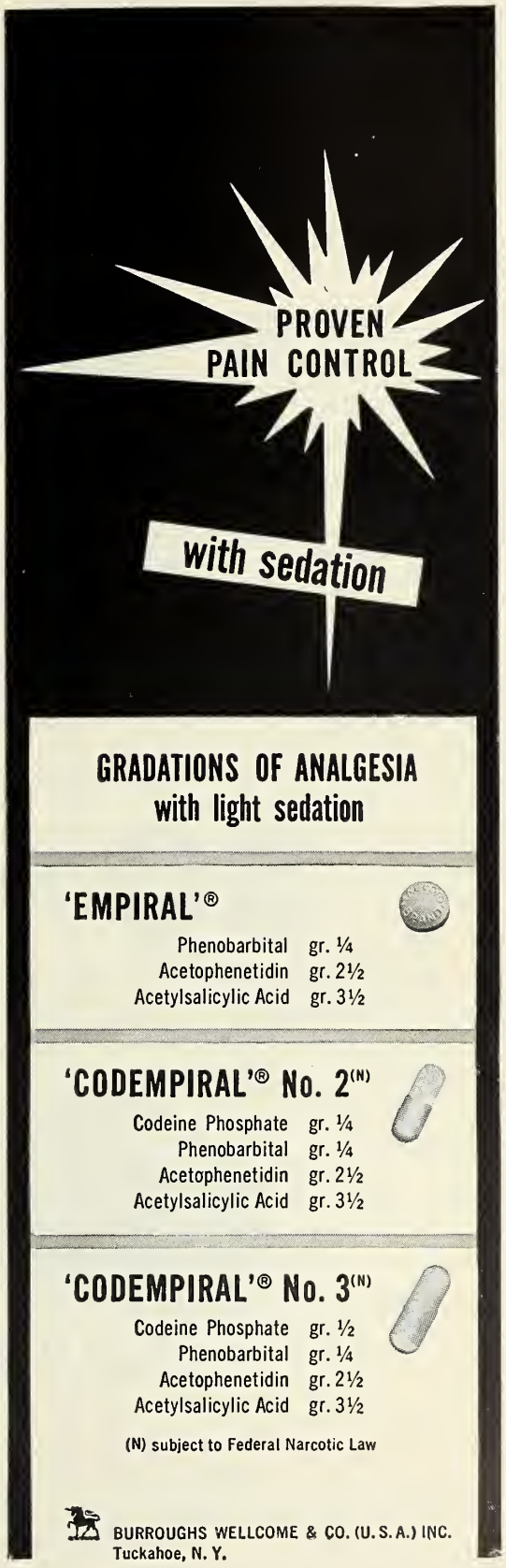
LECTURES ON HISTORY OF SURGERY

Physicians with a historical turn of mind will be interested in learning of a series of lectures that is being sponsored by the International College of Surgeons, at the Surgeons' Hall of Fame, 1524 Lake Shore Drive, Chicago. They are welcome to attend whenever one of their visits to Chicago happens to coincide with the date of a lecture.

November 13—"The Surgery of Greece and Rome"—Dr. Benjamin Spector, president of the American Association of the History of Medicine and professor of anatomy and history of medicine, Tufts.

December 4—"The Middle Ages in Medicine and the School of Salerno"—Mr. Loren MacKenney, professor of history at the University of North Carolina.

January 8—"Early French Surgery"—Dr. Guy Kasten Tallmadge, professor of the history of medicine, Marquette University.



January 29—"Surgeons and the Rise of Anatomy" —Dr. Ilza Veith, professor of the history of medicine, University of Chicago, and president of the Chicago Society of Medical History.

February 19—"Antisepsis and Asepsis"—Dr. Eugene M. K. Geiling, Frank B. Hixson Distinguished Service Professor, and chairman of the Department of Pharmacology, University of Chicago.

March 1—"The Development of Surgical Anesthesia"—Dr. Max Sadove, professor of anesthesiology, University of Illinois.

April 2—"British Anatomists and Surgeons"—Dr. Lloyd G. Stevenson, professor of the history of medicine, McGill University.

April 23—"Barber Surgeons and the Liberation of Surgery"—Dr. Morris Fishbein, professor of medicine (Rush), University of Illinois College of Medicine.

May 14—"The Rise of Modern Surgery"—Dr. Chauncey Leake, College of Medicine, Ohio State University.

HEALTH INSURANCE REACHES NEW HIGH

The number of people in Iowa covered by voluntary health insurance reached a new high by September 30, according to an announcement by the Health Insurance Council, a federation of eight insurance associations representing 90 per cent of the accident and health business. As of that date, it was estimated that 1,650,000 persons in the state were protected by some form of insurance designed to help pay hospital and doctor bills.

This figure, the Council says, is part of the continued growth of health insurance throughout the country. The number of people covered by some form of health insurance in the nation today stands at the 110,000,000 mark.

In its survey, which is based on reports from insurance companies, Blue Cross-Blue Shield and other health care plans, the Council has reported that 1,612,000 people in Iowa had hospital expense insurance, as of December 31, 1955. That represented a gain of 54,000, or 3.5 per cent over 1954. On December 31, 1955, there were 1,506,000 Iowans who had surgical expense insurance, 101,000 (7.2 per cent) more than on the corresponding day in 1954.

The number of Iowans with regular medical expense insurance rose from 845,000 to 907,000 during 1955, a percentage increase of 7.3 per cent.

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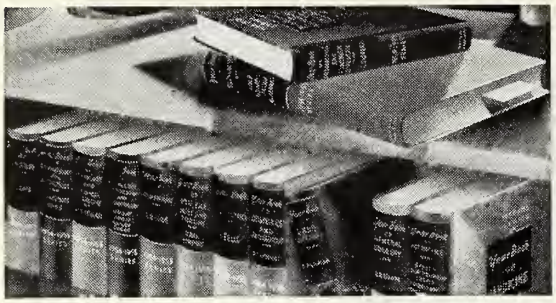
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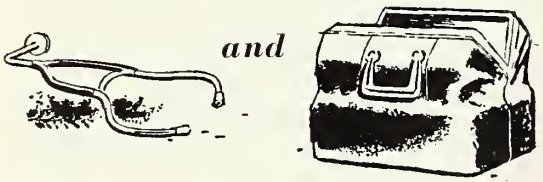
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AMERICAN FRACTURE ASSOCIATION

The 1956 Annual Meeting and Postgraduate Course of the American Fracture Association is to be held on November 28, 29 and 30, and December 1, at the Drake Hotel and Cook County Hospital, in Chicago.

The principal speakers are to include Dr. Harrison McLaughlin, of New York City, Dr. Hampar Kelikian, of Chicago, Dr. Leo K. Cooper, of Gary, Dr. Duncan McKeever, of Houston, Dr. Walter Ludlum, of New York City, Dr. Russell D. Harris, of Oklahoma City, Dr. Robert McElvenny, of Chicago, Dr. W. Compere Basom, of El Paso, Dr. Wm. Johnson, of Galesburg, Dr. Eugene Jewett, of Orlando, Dr. James K. Stack, of Chicago, Dr. John E. Erich, of Rochester, Dr. Stuart D. Kelly, of Madison, Dr. Wm. Waldrop, of Oklahoma City, Dr. Wayne Bronaugh, of Parkersburg, W. Va., Dr. A. Diehr, of St. Louis, Dr. Peter B. Wright, of Orlando, Dr. Alexander Kushner, of Miami, Dr. C. Philip Fox, of Washington, Indiana, Dr. Wm. Frackelton, of Milwaukee, and Dr. Walter Blount, of Milwaukee.

INTRAMUSCULAR IRON IN ANEMIA OF INFANCY

A new intramuscular injection called Imferon promises to be "a safe, effective and convenient" means of treating iron deficiency in infancy, according to Dr. Ralph O. Wallerstein, of Children's Hospital, San Francisco. He has reported tests on infants ranging in age from 5 to 36 months in a recent issue of the JOURNAL OF PEDIATRICS.*

Developed in England, where it has been described as a "notable advance in the treatment of iron-deficiency anemia," Imferon has recently been made available for extensive clinical evaluation in this country by Lakeside Laboratories, Inc., of Milwaukee.

Dr. Wallerstein points out that whereas oral iron preparations must be administered regularly for many months and, in outpatient practice, faithful maintenance of a prescribed drug regime is unusual, as few as one to four injections of Imferon not only correct hemoglobin deficiency, but store enough iron in the infant to protect against future needs. He found that those changes were accompanied by a return of appetite, as well.

Further, the new preparation is said to produce no undesirable side effects. The injections, Dr. Wallerstein says, cause no local pain, tenderness, redness or swelling; they are a means of avoiding the formation of insoluble precipitates, which is a danger when food—especially milk—is ingested along with oral iron; and they occasion none of the technical difficulties posed by intravenous injections in infants.

* Wallerstein, R. O.: Intramuscular iron for treatment of iron-deficiency anemia in infancy. J. PEDIATRICS, 49:173-176, (Aug.) 1956.

ROSTER OF IOWA PHYSICIANS IN MILITARY SERVICE

As of October 10, 1956

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(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Conoan, Eduardo A., Dow City
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Day, R. T., Hampton
(10th Tactical Hospital, USAFE, APO 123, New York City) .....Capt., U.S.A.F.
Devine, J. S., Whittemore
(San Diego, California) .....U.S.N.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Elmer, Norman J., Strawberry Point .....U.S.N.
Gleeson, J. J., Vail
(Fargo, North Dakota) .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
.....Capt., A.U.S.
Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Heffron, John F., Anamosa
(Ellsworth AFB, Rapid City, S. D.) 1st. Lt., U.S.A.F.
Howe, G. W., Iowa City
(Grosse Isle, Michigan) .....N.A.S.
Johnston, T. L., Iowa City
(Qtrs. 12, Warren AFB, Cheyenne, Wyo.) .....
Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Lake, Carlton B., Sumner
(Ft. Sam Houston, Texas) .....A.U.S.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.
McCoy, John T., Cedar Falls
(U.S. Naval Hosp., Philadelphia, Penn.) Lt., U.S.N.R.
McFadden, F. Ross, Davenport
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Workman, R. D., Ruthven
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DEATHS

Dr. Loren Kenneth Meredith, 65, who had practiced in Des Moines since 1917 and had been medical director of the National Life Company since 1921 and of the Iowa Life Insurance Company since 1945, died of an abdominal hemorrhage following surgery at Methodist Hospital, Rochester, Minnesota, on September 13.

Dr. Henry Arthur Gray, 83, a member of the American College of Surgeons and a Life Member of the Iowa State Medical Society who had practiced at Keokuk for half a century, died at a hospital there on September 23.

Dr. Arthur Earl Davis, 73, who had practiced medicine at Seymour for 47 years, died on September 21 at a hospital in Rochester, Minnesota, where he had been taken for gallbladder surgery on September 10.

Dr. W. S. Petty, 70, who was head of the Woodbury County Health Unit and the Sioux City Health Department from 1930 until 1940, died in Macon, Missouri, on September 9. After leaving Iowa, he was for many years director of public health for the state of Nebraska, and at the time of his death he was associated with the U.S.P.H.S. and was director of the northeast district for the Missouri Health Department.

Dr. William A. Johnson, 46, of Iowa Falls, died suddenly following a heart attack at his home on October 3.

Dr. William G. Johnson, 76, who practiced medicine at Coin from 1908 until 1925, died on September 8 in Los Angeles.

Dr. Ross Ervin Gunn, 74, who had practiced at Boone since 1922, died at the Boone County Hospital on October 7. He had been in poor health for a number of years, and had been bedfast since June 11.

Dr. Harry C. Parsons, 80, who practiced at Iowa City and at Grinnell from 1930 until 1946, died on September 29 at Sawtelle, California.

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Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVI DECEMBER, 1956 No. 12

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Our State Medical Society—Its Future

RICHARD F. BIRGE, M.D.

DES MOINES

In speaking to you of the affairs of the Iowa State Medical Society, I shall talk largely in generalities. By doing so, I shall be able to save time, and I shall also be able to point out some ways of smoothing the path that lies ahead of us. After all, when an organization has as many problems as ours has, finding answers for specific questions is less important than building machinery by which we can effectively and promptly meet and resolve issues as they arise.

The major accomplishment of your officers during the past two years has been a reorganization and modest expansion of the operation of the secretary's office. As a result, we have a well-integrated, functional organization, with exceptionally well qualified department heads. Our office is headed by Mr. Donald L. Taylor, the ideal executive secretary. Mrs. Dorothy Dolk, our capable assistant executive secretary, carries the heavy burden of responsibility for our legislative work.

We are particularly delighted to have a new Department of Public Relations, with a capable man, Mr. Ray Stewart, in charge. The recently printed booklet entitled "Hi There" is a fine example of his work. Our work in the field of professional relations is expanding, and is being coordinated with that of Blue Shield. Mr. Wilbur Quinn, the head of the Professional Relations Department, has given special attention recently to rural health, to medical care of military dependents and to the development of a relative-value fee schedule similar to that of California. It may interest you to know that the Iowa State Medical Society now has a Fee Committee. It is anticipated that Blue Shield will adopt the fee schedule that this Committee is developing.

The latest addition to our staff is a field secretary. Your officers feel that Mr. Gerald Buckles, kindly released to us by Blue Shield, is filling an extremely important role. He is the liaison officer between the Iowa State Medical Society and each county medical society; he will keep you informed of Iowa State Medical Society policies, needs and wishes; he will convey to the Executive Council and Board of Trustees your requests and your needs; and he will help us coordinate our efforts at the local and state levels in the accomplishment of our mutual objectives.

Dr. Birge is secretary of the Iowa State Medical Society, and this is the report he delivered at the Fourth Annual Conference of County Society Presidents and Secretaries, in Des Moines on October 21, 1956.

A FLAW

With the aid of such personnel, we are meeting our problems ever more effectively. But nevertheless there is a flaw in our operation which gives me concern and which I should like to discuss with you. That flaw is not easily described or defined. Perhaps it can best be called a lack of clarity in our long-range objectives.

Unavoidably, we have been obliged for several years to spend far too much of our time dealing with the problems of the moment—particularly, defending ourselves against threats to our way of conducting the practice of medicine. Thus, we have had too little time for long-range planning.

When a man is attacked, he fights back with all the strength and courage he has. It is only the unusual man who, despite attack, can take the initiative, drive ahead and accomplish his objectives. It is essential that Medicine should go forward, despite its being under attack.

We must take a long, hard look into the future. We must plan ahead. We must recognize that the modern way of life is not static, but is ever-changing, that we have a growing population and an inflationary economy, that there is an ever-increasing assumption of responsibility by our national government—in world affairs at the one extreme, and in local affairs at the other. Such considerations, as well as numerous other factors, necessitate constant revision and adjustment of social relationships.

Medicine cannot stand aloof from social changes. Medicine must find its own destiny and plan for it. Medicine must find an answer to an important question—namely, "How can we preserve all that is good in our present way of doing things, and at the same time augment or enhance our way of practice by adopting social advances which are good?"

To do this is extremely difficult, for we are always extremely busy rejecting proposals that have been called "social advances," but which are in fact nothing of the sort. Nevertheless we must try to give more of our attention to constructive work, lest we be engulfed by the changes of which I have been speaking.

As far as our own State Society is concerned, it seems to me that there are three major steps which we must take. They involve improvements in our methods (1) of conducting Society affairs, (2) of conducting physician education, and (3) of doing long-range planning.

THE FIRST STEP

In connection with the first step, I have spoken of our modest program of expansion and reorganization of the work of the office of the secretary. It has, of course, entailed additional expense. I am convinced that this step has been necessary, and that your money has been well spent.

The chairman of our Board of Trustees, Dr. George Scanlon, has sometimes said that organized medicine is big business and that, in fact, the Iowa State Medical Society is a big business. The latter part of that statement, it seems to me, is in need of qualification. The operation of a big business requires capital, and despite the recent increases in dues, the 2,100 dues-paying members of the Iowa State Medical Society are providing their officers less money than businessmen with comparable responsibilities customarily require. And besides not having all of the money that we could use, we are handicapped by the fact that we who operate this, our business, can give no more than part-time attention to it.

Fortunately, however, we have assets other than monetary. One of our tremendous assets is the group of loyal laymen who serve us in our central office and in the office of Iowa Blue Shield. But we must bear in mind that we cannot leave our affairs wholly in the hands even of the most competent laymen. Any medical society that delegates the establishment of major policy will surely fail.

Included among our assets are an alert, aggressive Executive Council, a most competent Board of Trustees, a diligent and wise Judicial Council, and an integrated system of working committees. These are the bodies that conduct the affairs of your Society during the intervals between meetings of the House of Delegates. Seldom does any officer fail to attend a meeting, or fail to respond when he is asked to do a job.

A most important asset is the Woman's Auxiliary to the Iowa State Medical Society and its county units. We know that we can count on the Auxiliary at all times, and we look forward to some real results from its efforts during the forthcoming legislative session.

We must never forget that Blue Shield is one of our greatest assets. Unlike its poor cousin, the Iowa State Medical Society, Blue Shield has *income*. But at the same time, it faces problems—increasing usage and demands for broader coverage. Hence higher premiums are inevitable. It is true that broader coverage may soon turn from a problem into a blessing, for rising premiums will encourage people to purchase "deductible" plans, and thus to utilize their Blue Shield benefits more conservatively.

Iowa Blue Shield has as its basic function the collection in advance of your fees for the services you render to your patients. Thus, Blue Shield is working for you. Moreover, I am sure that its Board of Trustees and officers recognize its obligation to you, the Iowa physician. At the same time, we must remember that the Board of Directors of Blue Shield has an obligation to protect the interests of policyholders. Hence, for the good of all, the hard-working directors and officers of Blue Shield deserve your and my full support.

It is a pleasure for me to report to you that during the past year the Iowa State Medical Society and the Iowa Blue Shield have evolved a mutually satisfactory working arrangement. They are working together, and Blue Shield is going to come up with a modern, diversified program of which I am sure we all shall be most proud.

We have still another asset—namely, our county medical societies. The Iowa State Medical Society can be no stronger than its roots. We can and must have a system of well organized, functioning county societies, with working committees and active officers. Does your county society meet those simple criteria?

In this connection, I wish to bring an important matter to your attention. At the last meeting of our House of Delegates, our By-Laws were changed to enable two or more neighboring counties to amalgamate and thus form a stronger local society, without loss of representation in the House of Delegates. In other words, if two county medical societies combine, each county will continue to have representation in the House of Delegates.

Our specialty and general-practice societies are assets which should not and must not be overlooked. All medical groups in Iowa must work together and support one another's objectives, as they have been doing, if there is to be a bright future for Medicine in Iowa.

THE SECOND STEP

I might best open my discussion of the second step that I mentioned by recalling the story of a young physician who, after a short time in practice, found an opportunity to voice a question that perplexed him. He asked, "Why must I be a public relations specialist, a politician, an astute business man and a doctor of medicine, all at the same time? I thought when I went to medical school that I needed only to learn to practice medicine. All I ever wanted was to be let alone so that I could give all of my time, my energy and my mental capacity to the care of my patients."

If we could tell this young physician that his wistful desire might come true within his lifetime, we should all be delighted. I think, however, that

it would be more practical for us to find ways of preparing our medical students for the facts of life as regards medical practice, in addition to teaching them the science of medicine. I am fully convinced that in planning for the future, Iowa Medicine will have to insist that education along socio-economic lines be made a basic and adequate part of the course of study at our medical school, notwithstanding the fact that the curriculum is already crowded.

An informed, active medical profession can solve its own problems. Medicine may be practiced in a somewhat different form 20 years from now, and many of us dread the prospect of such a change. Nevertheless, if we look ahead and work together, I think that we can form a rather accurate picture of that practice and can even entertain the perhaps foolish conviction that we can make it what we reasonably believe it ought to be.

The young physician to whom I have referred must give a great deal of his time and thought to medical public relations, to his own civic responsibilities and even to political matters. Moreover, he must be an active member of his county, state and national medical organizations. He must make himself available to, and give his time to, the real service of organized medicine.

THE THIRD STEP

We come now to a consideration of the third of the series of steps that I have said are essential to the improvement of our approach to the resolution of our problems. Having a pool of talented, well-informed physicians, willing officers and capable employees, as well as many other assets, how do we find a way to make the very best use of our resources?

Let us for the moment be introspective. Despite the fact that all of us member physicians respond well when called upon to help with the work of organized medicine, we all have a tendency to do no more than we have been asked specifically to do. When a committee meeting is called, we attend, discuss issues in an animated manner, and frequently offer constructive suggestions. But what do we do between meetings? Being preoccupied with our practices, we spare little time for review of our medical society's problems and responsibilities. Rather, we wait until we are called once more, and then hasten to another meeting, make decisions with all prudent alacrity and hurry back to our offices.

All of us—officers, committee members and lay employees—must willingly assume more and more responsibility. More of us need to become idea men. We need to do more research. We must look into the future. *We must plan ahead.*

As I have said, our officers, committees and lay employees are functioning very well under present circumstances. They can become more effective only if we find a way to chart a course for the future.

Hence, I wonder whether it would not be well for our Society to have a permanent Plan and Scope Committee, instructed to meet periodically, with the objective of pointing the way for the future work of this Society. Such a Committee should come up with some fairly specific proposals for the House of Delegates and the Executive Council to consider. Most important, such a Committee should weight its proposals in order that the officers of the Society might have a clear idea of what parts of the proposed program, in the opinion of the Committee, should be stressed or expedited. This is particularly important, for our income is limited. We must always give major attention to the question of where we can best spend our money.

If we can carefully define our objectives, we certainly should be able to make future decisions as to policy and procedure with better judgment and more assurance of success than in the past.

CONCLUSION

It has been a privilege for me to serve a three-year term as secretary, working for and within such an organizaton as the Iowa State Medical Society. I am sure that you will find a more efficient secretary next April. Nevertheless, may I stress to you that my work, and your work, in organized medicine can be tremendously challenging and fascinating. As secretary, one has a unique opportunity to observe the effective efforts of your officers, and to learn how their leadership stimulates genuine support and cooperation in our working committees. I know of only one job that is more fascinating than the one that you gave me, and that is my own practice of medicine.

I have mentioned these things in order that I might have an opportunity of suggesting to you, in closing, that you can find stimulation and satisfaction by continuing your service to organized medicine. All of you have accepted positions of responsibility and opportunities for service within your county medical societies. I hope that you will persevere in that work, and that you will make yourselves available for work in directing the course of Medicine at the state or at the national level.

Rural Health Work in Iowa

S. P. LEINBACH, M.D.

BELMOND

No doubt numerous doctors have wondered why it is necessary for Medicine in general, or for the Iowa State Medical Society in particular, to single out rural health for special attention. It is wise for all of us to reflect frequently upon the justification for our existence, and to assess both our past accomplishments and our plans for the future. As regards our efforts to improve the health of our rural people, the time for taking that inventory has come.

Iowa is a rural state. Though it is doubtless true that a majority of its people live in incorporated areas, if our city friends will allow us to classify the residents of small towns (fewer than 10,000 people) with the farm population, then Iowa can be said to be predominantly rural. Such a classification is proper, for the sociologic, economic and medical problems of the farmer necessarily concern the people of rural towns and villages. The reverse is likewise true. When the town child contracts diphtheria, or when the farmer suffers typhoid fever—be it from travel or as the result of poor sanitation—a health problem results that affects the whole area. Similarly, the farm worker who loses an arm in a corn-picker often becomes the psychologic, economic and medical concern of the entire community.

The AMA thought the need for an organized rural health program was so great that, in 1945, it established a Council on Rural Health. Its purpose, as stated by its chairman, Dr. F. S. Crockett, is "To help rural people help themselves to better health." Since 1945, a rural health committee has been established in nearly every state, as a part of the state medical society organization. The need for such an organized activity has been great in Iowa. Our people are interested in good rural health, and, I can add, they are in most instances convinced that they are receiving superior medical care. Being progressive as well as literate, our rural people have begun health-improvement activities through their various organizations. Other groups, such as the Heart Association, have been set up on a statewide basis especially for the purpose of promoting an individual aspect of health, and their activities have been extended widely into rural areas.

These lay organizations are, in the main, good for our people. But in the past there has been too little help and guidance given them by the medical profession. As a result, lack of efficiency and duplication of effort have resulted in a waste of time and money for the lay participants and a loss of goodwill for doctors. Individually and collectively, physicians must become more active in coordinating and guiding the health efforts of these organizations. True, we physicians may differ occasionally with the attitudes that lay groups represent. But such differences of opinion are inevitable. Have you ever known a man of strong character whose ideas did not clash, in some particulars, with those of even his best and most respected friend? We can—and indeed we must—cooperate with our fellow citizens, regardless of whether or not their ideas precisely coincide with our own. Plato wrote: "Friendship is, strictly speaking, reciprocal benevolence, which inclines each party to be as solicitous for the welfare of the other as for his own. Equality of affection is created and preserved by a similarity of disposition and manners." We doctors need friends, and by joining these associations and participating actively in their health programs we have an unparalleled opportunity not only to improve rural health, but also to make friends in wholesale lots.

MAJOR DIFFICULTIES

The health problems peculiar to rural people are numerous. The farmer is subject to all of the diseases of the city dweller, plus many of his own. As Dr. F. H. Top, director of the SUI Institute of Agricultural Medicine, pointed out in his excellent article published in the August 4, 1956, J.A.M.A., there are 40 or more diseases in Iowa that can be transmitted from animal to man. The local importance of some of them has only recently been recognized. Leptospirosis is typical of them. It is common among our livestock, and it will probably become a menace to human beings as water shortages increase the need for farm reservoirs. Thus, the physician of tomorrow will come to have a first-hand acquaintance with Weil's disease, an entity that many of us have never seen outside our medical-school texts. Among others, rabies is a real menace in spite of effective methods of control. Brucellosis and even bovine tuberculosis, unfortunately, are being seen with increasing frequency as the result of a lack of vigilance and of education.

Farm accidents in Iowa are not only crippling but deadly. Farming has become the third most dangerous occupation in the country. National Safety Council figures show that in 1954 there were 14,000 farm-accident deaths and 1,200,000 farm-accident injuries in the United States. Iowa has had its quota. It is sad to reflect that all of them were preventable. Dr. N. J. Wardle, of Iowa State College, is doing outstanding work in his farm-accident studies. In addition, the Institute of Agricultural Medicine at Iowa City is doing re-

Dr. Leinbach is chairman of the ISMS Subcommittee on Rural Health. He delivered this report at the Fourth Annual Conference of County Society Presidents and Secretaries, in Des Moines on October 21, 1956.

search in this problem. The Iowa Farm Bureau Federation has paved the path for practical research studies by setting up a complete reporting program for all farm accidents in 57 counties. These organizations are working cooperatively, and we physicians must help them. Much pertinent information on how to prevent farm accidents would become available if all Iowa physicians would report each of their farm-accident cases as to type of injury, factors that caused the accident, and suggestions as to how future accidents of each sort can be prevented.

Today, the farmer is constantly exposed to the dangers of many chemicals and hormones, for he uses them in the control of insects, rodents and weeds, and recently in livestock feeds. Many are known to be deadly, and the full potential of others is still undetermined. Many are marketed without labeling as to ingredients. The AMA is currently promoting a bill in Congress that would make the adequate labeling of these farm-used products mandatory, and all physicians should lend their support so as to insure the passage of that legislation. Dr. Clyde Berry, associate director of the SUI Institute of Agricultural Medicine, is making extensive studies relative to the effects of these toxic products upon the Iowa farmer. Physicians are urged to report cases of poisoning to Dr. Berry. There is paramount need in Iowa for a state-operated poison-control center. Day or night, such an agency could supply information as to the toxic principles in the various trade-named products. In addition, it could provide advice as to the best methods for treating the particular types of poisoning that result from contact with these chemicals.

PRESENT ACTIVITIES OF THE SUBCOMMITTEE

In each of the previously mentioned problems, your Subcommittee on Rural Health has been actively interested. In addition, our attention has been focused upon many others. We are gratified to have obtained excellent cooperation and understanding from many statewide organizations that are interested in health problems. We have maintained pleasant and fruitful relations with the College of Medicine at SUI, the Extension Service of Iowa State College, the Iowa Farm Bureau Federation, the Iowa Safety Council, the Iowa Health Council, the Iowa Tuberculosis and Health Association and the Iowa Heart Association.

Plans have been made for a Rural Health Conference at Iowa State College. Extensive representation from the various organizations all over Iowa is anticipated. The Iowa State Medical Society is to be host, and the various previously-mentioned organizations are to be co-sponsors. Through the joint planning of all of the groups, a good program has been developed, and guest speakers have been carefully selected. Originally, the conference was scheduled for November, but it has been postponed until March because of speaker date conflicts. The various groups felt, in view of weather uncertainty during the winter months, that a date in early March would best assure a good attendance. The cooperation of all physicians in promoting the conference will be important and most welcome.

During the past summer, the preceptorship program was again extremely successful. It is jointly sponsored by the Subcommittee on Rural Health and the SUI College of Medicine. The vast majority of preceptees, as well as physician preceptors, felt the rewards were great. This program is important, and all general physicians are urged to volunteer their services. The preceptor becomes a better physician because of having served as a teacher and advisor. The experience is of tremendous benefit to the student, for as a result, he graduates with a first-hand understanding of a general practitioner's problems that will be valuable to him even if he undertakes specialty training immediately, and not infrequently, as a preceptee, he sees the challenges of general practice and is led to enter that field, the one in which more physicians are most needed.

In certain areas of Iowa, there is still need for additional general physicians. The Placement Bureau operated by the Subcommittee on Rural Health helps doctors find the locations where they can do most good and where they will be happiest. It is worthy of note that the needs for the services of a local physician don't always parallel the desires of the people in a community. Extremely small towns and towns located near others that have plenty of physicians are, if possible, made to realize that their desires are unrealistic. We always stress the slogan: "Not how many miles to a physician, but how many minutes." Mr. Wilbur Quinn, who is directly in charge of the Placement Bureau, is doing an outstanding job in promoting the effective location of physicians in Iowa.

The appointment, during the past six months, of a rural health contact representative in each county medical society has been an important step forward. Nothing else that we have done in the rural health field has gained us so much favor with health-interested lay organizations. Through these contact men, questions relative to rural health can be answered locally or can be referred elsewhere whenever necessary. In addition, the rural health contact representative is the man to whom those organizations can come when they wish to secure speakers for their meetings. In some counties the medical societies have already sponsored health forums and talks. Local organizations such as the Farm Bureau, the Extension Service, and the Parent-Teacher Association have done much through their notices and announcements to assure interested audiences. More such programs are needed. We have no better means for creating good public relations.

WAYS FOR IMPROVING PUBLIC RELATIONS

On October 19 and 20, Mr. Quinn and I attended a two-day study conference on rural health which was held at Purdue University under the sponsorship of the AMA Council on Rural Health. Present

were state rural health chairmen and secretaries from most of the states in the country. The review of rural medicine problems that was conducted there was most rewarding.

It was clearly revealed that across the entire nation the greatest benefit for rural medicine as well as for medicine in general can be achieved through the improvement of public relations. Good public relations cannot be built solely by effort at the national, or even at the state level. Getting to know the various community organizations composed of laymen having health interests is indeed important. It was proposed that representatives from those groups be invited to join doctors at county medical society meetings, so that they might share in the discussion of mutual problems. Such a procedure might do much to promote public respect for, and trust in, organized medicine. In addition, we doctors need to become better acquainted with the other professional men in our communities—especially the lawyers and clergymen. And we should cultivate the friendship of newspaper, radio and television people, as well.

It is important for us to keep in mind that good public-relations building depends upon laying a good foundation. It is the individual physician and the county medical society that are responsible for the quality of that foundation. Each of us is, indeed, "his brother's keeper."

In closing, let me urge that in this age when our system of medical practice is seriously threatened, we should develop greater harmony among all physicians, be they general practitioners or specialists, teachers or private practitioners, city doctors or country doctors. Further, let us extend our tolerance and understanding to all of the many individuals and groups who believe with us in the superiority of free enterprise. We physicians must realize that though each one of us stands high in the esteem of his patients, all of us taken together are more or less the object of suspicion. Thus it is up to each of us to make his patients think of him, not just as a fine physician and a staunch friend, but as representative of a profession that is similarly deserving of respect and confidence.

Marie Dressler once said, "Never one thing and seldom one person can make for success. It takes a number of them merging into one perfect whole."

P-R OPPORTUNITY FOR MEDICAL SOCIETIES

Among the many presentations at the AMA's 1956 Public Relations Institute held in Chicago late in August of this year, the one which held the greatest interest for your Observer was the discussion of "Local Science Fairs: The 1956 PR 'Plum.'" Science fairs are not new, but medical participation in them is. Such fairs have grown rapidly since 1950 under the guidance of Science Service, a nonprofit organization with headquarters in Washington, D. C. Not all fairs are sponsored by the Service's affiliates. Many are independent projects. Without exception, they are underwritten financially by interested groups in the community.

Science Fairs are invariably school projects; that is, participants are students, often from the lowest grades up to and including the last year in high school. Reasons for this were explained by Mr. Joseph H. Kraus, Coordinator of the National Science Fair, in an address to the Institute: "It has long been recognized by scientists, educators and psychologists that a leaning toward interest in scientific pursuits may start at a very early age in life. In an effort to bring the motivation toward science to more students, and during their formative years, we encourage the development of Science Fairs.

"A typical Science Fair is a collection of exhibits, each of which is designed to show a biological, chemical or physical principle. It may be a laboratory procedure, industrial development or an orderly collection of anything which can be fitted into the broad concept of any branch of science.

The first medical organization to lend its support to the Science Fair in its community was the Porter County (Indiana) Medical Society. Dr. Ralph Eades, past-president of that Society, was on the panel at the AMA Public Relations Institute to discuss his organization's experience with the project. He told a simple story about a group of youngsters who in 1951 appealed to the Society for financial and moral support. The Society voted to give the needed assistance. The undertaking was so successful that Dr. Eades and his associates have become Fair enthusiasts.

Dr. Eades said: "The Science Fair is the best public relations prospect we have had in the past 25 years. The Science Fair program is strictly American, an entirely voluntary effort to allow boys and girls to develop themselves to the limit in so far as they desire. It is also a fine anti-delinquency program. Its ubiquity compares favorably with our own AMA, and its component parts reach down to a grass-roots organization providing boys and girls with the best opportunities to be found anywhere in the world."

Mr. John E. Farrell, executive secretary of the Rhode Island Medical Society, made a telling point when he said: "A year ago a leading pharmaceutical company reported that 23 out of every 100 U. S. public high schools offer neither physics nor chemistry courses; 24 offer no geometry. Between 1950-1955, the number of science and engineering graduates of American colleges dropped more than 50 per cent. High school enrollment climbed 16 per cent in the past five years, but the number of qualified science teachers dropped 53 per cent.

"Consequently, every group which participates in the Science Fair project is performing an outstanding service, because the continued success of our industries and professions depends on an adequate supply of scientists and technologists."

—From "In and Out of Focus," in MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA

Scientific Articles

The Care of the Patient With

Terminal Malignancy

ALEX E. BROWN, M.D.

ROCHESTER, MINNESOTA

TERMINAL MALIGNANT DISEASE is a commonly used descriptive phrase, but except when it is meant to designate the state that precedes death by no more than a few hours or days, it is incapable of exact definition. In most instances, one can no more than presume this condition to exist, for various palliative measures are available which may serve to postpone death for an indefinite period. For that reason, I shall use the phrase advisedly throughout this paper, intending it to describe the condition of a patient whose advanced malignant disease has been thought incurable when first seen.

THE EXTENT OF THE PROBLEM

So-called terminal malignant disease occupies such a large field that treatment becomes an extensive and difficult problem. Not only does each individual patient present perplexing difficulties, but the number of patients who have malignant disease is constantly increasing. To understand the situation fully, one must bear in mind that the burden of care of these patients rests largely in the hands of the general practitioner of medicine, and in most instances the patient is confined to his home. Further evidence of the extent of the situation is afforded by the fact that malignant neoplasms are second only to cardiovascular-renal disease as the major cause of death in the United States. Cardiovascular-renal disease accounts for half of our total mortality, and malignant neoplasms account for a fifth of it.[1] Our vital statistics show that 227,079 deaths occurred in 1953 from malignant disease. Death rates from malignant disease increase with advancing age, and better diagnosis and better medical care are contributing to a progressive aging of our population. Older people today constitute more than a quarter of our total population, and thus many individuals who have been spared other diseases remain to fall victims to malignant disease.

Statistics from the Metropolitan Life Insurance Company[2] show an increase in the crude death rate from malignant disease per 100,000 policyholders, from 126.7 in 1953 to 128.7 in 1954. They also show an increase in mortality rates of slightly more than 4 per cent from malignant neoplasms of the digestive system and the respiratory system. In this same period, from 1953 to 1954, the death rate from cardiovascular-renal disease dropped 5 per cent, from 341.6 to 324.8 per 100,000 policyholders. In spite of the high mortality rate from malignant disease in the older age groups, it cannot be said that it neglects the young, for statistics of the Metropolitan Life Insurance Company[3] show that about a twelfth of all deaths from malignant neoplasms occur at ages 15 to 44 years, and that more than 6,500 new cases develop at those ages each year. Thus, in spite of the fact that more people are being cured of malignant disease each year, an increasing number are not cured, and actually many of these are incurable at the time the diagnosis is made.

With this understanding of the large scope of the problem, we can proceed to a consideration of the individual patient who is presumed to have incurable malignant disease.

EARLY GENERAL MANAGEMENT

In justice to the patient and ourselves, before attempting treatment we physicians must establish the existence and extent of the suspected incurable malignant disease in every instance. We

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must definitely know whether the patient now has, or ever has had, a malignant lesion. The question can be answered only by a careful review of the history, a thorough physical examination and an exacting scrutiny of all available laboratory data. In the event that biopsy material is available from the present or the past, it should be examined by a competent pathologist, and if such a study is impossible, verification should be made of a previous pathologic diagnosis. Besides establishing a definite diagnosis, these procedures will help the doctor gain the patient's confidence, bolster his morale and convince him that his physican has an earnest, vital interest in his welfare.

If this investigation establishes the presence of malignant disease, it is then necessary for one to determine whether the presenting symptoms are due to activity of the disease, or whether they are due to an unrelated, nonmalignant condition. From the standpoint of a positive threshold of suspicion, one can avoid many pitfalls, when a malignant lesion is known to have existed, if he assumes that pain of indeterminate origin and other symptoms are related to the malignancy until they have been proved to have another cause. But from the standpoint of a negative threshold of suspicion, one should remember that any large medical practice will readily reveal instances in which symptoms thought to be due to a recurrence or a metastasis of a malignant neoplasm have been found to be the result of some unrelated condition. As one of many examples of this type, I cite the case of a patient I saw some years ago who had severe backache that came on two years after a partial gastrectomy for an ulcerating adenocarcinoma of the stomach, Grade 3. Roentgenograms of the spinal column were negative, but the suspicion of a metastatic lesion was great enough to justify roentgen therapy. When this procedure had failed to afford relief, our continued study of the patient led us to the removal of a protruded intervertebral disk a few months later, with alleviation of all symptoms.

When once the diagnosis of incurable malignant disease has been made, the question immediately arises of what to tell the patient. Various individuals and groups have expressed opinions on this matter over the years, but with the growth of public knowledge of medical matters, the pendulum seems to have swung to the point where the patient usually had best be told some version of the truth, if he wants to know it. A survey[4] made through the Department of Surgery at the University of Minnesota in 1950 indicated that of 100 patients with an established diagnosis of cancer, 89 preferred to know their condition. Although the dread word *cancer* once spelled only doom for its victim, today's education of the public has opened vistas of hope for such patients. As a result of my experience and that of my colleagues over the years, it certainly is my feeling that it is better for the patient to know something of the diagnosis, and especially is this true if he has made inquiry regarding it.

There will always be exceptions to this rule, and it behooves the astute physician to learn of these exceptions and of the various circumstances which create them. There is, of course, the occasional patient who apparently cannot tolerate the truth in regard to the diagnosis, and there also are relatives who will insist that the patient be kept in ignorance of it. Youth, freedom from responsibility and an unusually unstable nervous system constitute other factors which may influence the doctor's decision. Few patients can be genuinely deluded as regards the diagnosis, but there are some who prefer that all concerned should tactfully refrain from discussing it. Certainly if the patient is not told the diagnosis, some responsible members of his family must be made acquainted with it, and for future reference a note should be made of who was told and when.

As a final corollary to all of the foregoing discussion, let me mention my belief that one should never tell the patient the diagnosis without at the same time tempering the truth mercifully by extending some hope for the future. I am sure the word *hopeless* has no place in the lexicon of the patient with malignant disease, and that the physician can conscientiously forego the use of it in his conversations with the patient. It is actually astonishing how much more easily the patient can tolerate his troubles if he has been allowed to retain some hope of palliation and alleviation of pain.

After the patient or his relatives have been told the diagnosis, the question of prognosis and life-expectancy usually arises. In spite of past experience in what may appear to be similar situations, the years have shown me that too many variables exist in any given patient for anyone to make definite predictions concerning life expectancy. A wise physician will avoid making a quick and rash reply to such an inquiry, and will confine himself to a short-term prediction. Patients occasionally outlive their predicted life span, and when they have done so, their relatives take delight in calling the doctor's attention to his mistake almost daily.

WHAT CAN BE DONE FOR THE PATIENT?

When these various problems have been met, we come to the crux of the difficulty: what can be done for the patient with an incurable malignant disease? That is to say, what can be done to keep him comfortable, and to prolong and make as useful as possible his remaining time? Surgical treatment, radiation therapy, hormonal therapy and chemotherapy are the specific measures available.

Surgical Treatment of Recurrent or Metastatic Lesions. Surgical procedures, preferably minor but sometimes radical, may be employed for the removal of a recurrent or metastatic lesion when the general situation seems to justify it. Such treat-

ment is best used in the removal of superficial and readily accessible nodules which appear to be solitary. In skilled hands, more radical procedures have given encouraging results in some patients with accessible lesions, as for instance a solitary metastatic nodule in the lung. In 1950 Seiler, Clagett and McDonald[5] reviewed the literature and reported a small series of such pulmonary lesions for which lobectomy or segmental resection had been done. Of 16 such patients who had previously had primary carcinoma of the colon,[6] eight (50 per cent) were alive and well three years later. Similar results have been noted in patients who have had primary lesions in other sites. Such operative procedures are particularly suited to the patient who has had a primary malignant lesion of the colon or kidney, and preferably they should be done at least a year after the initial surgical procedures. Operations can also be used at times for the relief of obstruction or for the removal of fungating or ulcerating lesions that are distressful to a patient who may have several months to live.

Neurosurgical Treatment of Pain. Neurosurgery should be employed for the relief of pain of terminal malignant disease only when all other types of therapy have failed, when pain is intractable and, as a rule, only when the patient has a life expectancy of more than four or five months. If a lesser longevity is expected, a sincere attempt should be made to control pain by other measures. The observance of these limitations is advisable because neurosurgical procedures may be quite destructive, because they usually act only to suppress pain, because they usually exert no inhibitory effect on the malignant process and because they may produce some undesirable side effects. Svien and Jones[7] recently pointed out the methods of choice in this field—namely sympathectomy, tractotomy (chordotomy) and prefrontal lobectomy. To these of course can be added the use of alcohol to block the sympathetic nerves. When done as Pender and Lundy[8] have described, such blocks carry little risk and may give as much relief as sympathectomy does when pain is of visceral origin. For a patient with malignant disease, sympathetic block or sympathectomy may be of inestimable value in decreasing the need for narcotics. In carcinoma of the pancreas, such a block or sympathectomy (possibly combined with resection of the splanchnic nerve) may produce adequate control of pain. But when the malignant process spreads to involve somatic areas, sympathectomy usually will no longer be effective.

When one is considering tractotomy, he should bear in mind that pain and temperature fibers pass through the posterior root ganglia into the spinal canal, and then cross over to the opposite half of the cord. This crossing over does not take place at the level of entrance into the spinal canal, but may occur four or five segments higher, and thus the incision into the spinothalamic tract must be higher than the level of pain. Tractotomy may afford relief of pain, and it can usually be done without complication, particularly when it is carried out as a unilateral procedure and below the first cervical level. In most instances, only temporary dysfunction of bladder or bowel occurs under these circumstances, and there is no effect on motor power in the extremities unless the blood supply is accidentally interfered with. The possibility of complications naturally increases when a bilateral procedure is done. Permanent loss of pain will result from a technically successful spinothalamic tractotomy.

Rather than abolishing pain in the usual sense, prefrontal lobotomy takes away fear, anxiety and the emotion of suffering. It may produce a number of undesirable side effects, many of which may disappear gradually. Euphoria may be pronounced, and a state of confusion may occur. There may be incontinence of bladder and bowel. Certainly no procedure of this type should be done unless those responsible for the patient have been thoroughly acquainted with all of the undesirable possibilities.

Although it is true that these neurosurgical procedures that I have mentioned are of inestimable value at times, it nevertheless can be hoped that other measures will continue to decrease the necessity for their employment.

Radiotherapy. Radiotherapy is a valuable measure for the control of malignant disease, and it may be used in the form of conventional or supervoltage roentgen rays, radium, artifically activated cobalt or radioactive isotopes. Because it is suited for the treatment of lesions that are radiosensitive and radioaccessible, it is particularly valuable for skin lesions and metastatic lesions in lymph nodes and bone. Radiation, if it is to be successful, must exert an effect on the tumor, but must not interfere with the viability of surrounding tissue. Radiation is a useful agent in conjunction with other forms of therapy. It may be used at intervals over a period of years, unless contraindicated by the limiting tolerance of surrounding tissue, by the diminishing response of the tumor, or by the development of leukopenia or thrombocytopenia. It does have the disadvantage of producing severe radiation sickness, radiodermatitis and pulmonary fibrosis in some instances. I think it should be emphasized that despite the introduction of new therapeutic measures, conventional radiation continues to be a satisfactory and, in many patients, a lasting means of relieving symptoms.

Certain forms of lymphosarcoma, lympho-epithelioma and seminoma usually are highly radiosensitive tumors.

Moderately radiosensitive ones include basal-cell and epidermoid carcinomas of the skin, and some adenocarcinomas such as those of the endometrium and, at times, of the breast and cervix. Adenocarcinomas of the gastrointestinal tract and endocrine glands are usually not very radiosensi-

tive, and the sensitive tissue surrounding the former makes radiotherapy perilous. Other poorly radiosensitive tumors are sarcomas of soft tissue and bone, and malignant melanomas.

Radiotherapy is valuable in the control of segmental root pain even when bony metastasis cannot be demonstrated and in situations in which perineural infiltration can be assumed to exist. This is especially true of metastatic lesions from carcinoma of the prostate or breast.

In view of new developments in the field of radiotherapy, radium is being used less than it once was, but it still has a place in the treatment of accessible lesions. Radioactive cobalt, on the other hand, is being used more frequently. It emits rays having high penetrating powers similar to those of radium, and it has an important advantage over radium in that it is readily available in large quantities.

Radioactive isotopes of iodine (I^{131}), phosphorus (P^{32}) and gold (Au^{198}) are available for treatment. Radioactive iodine has proved valuable in the treatment of metastasis from certain types of carcinoma of the thyroid such as follicular papillary adenocarcinomas and follicular and mixed follicular, solid type of malignant adenomas. Radioactive phosphorus has been of value in the treatment of polycythemia vera, in some cases of early chronic myelogenous leukemia and, to a lesser extent, in chronic lymphocytic leukemia. Radioactive gold will give relief from malignant serous effusions of the pleura and peritoneum in about 66 per cent of selected cases. The material has a short life of radiation activity, and it is effective no more than one or two millimeters below the surface.

Hormonal Therapy, Including Surgical Procedures on the Endocrine Glands. Hormonal therapy has given rise to a new field which holds considerable promise in the treatment of malignant lesions, although to date all hormonal therapy has been no more than temporarily palliative. It seems evident that sex hormones may contribute to the growth of many malignant lesions, particularly those involving the prostate or the breast. But it is probable that they also promote the growth of malignancies of the ovary, the endometrium and the thyroid. Such sex hormones, although produced in the gonads, may also be produced in the adrenal cortex. Thus it may be that the latter gland exerts a profound influence on malignant disease, and that the pituitary may also be involved, by having a primary trophic effect as well as the one which it exerts on gonadal and adrenal function. In practical usage, we are all familiar with the benefit of orchidectomy and the administration of estrogens on carcinoma of the prostate, with or without metastasis. The former procedure may be employed initially or may be held in reserve. The latter—in the form of diethylstilbestrol, given daily in a dose of 1-5 mg.—will frequently control the disease for indefinite periods.

In carcinoma of the breast with metastasis, the situation is not so clear, although as early as 1896 Beatson[9] recommended oophorectomy as treatment for carcinoma of the breast. Since then, a number of capable observers have recommended oophorectomy for premenopausal women. Pearson and his associates[10] have noted that this procedure produces objective remission averaging nine months in about 44 per cent of premenopausal women, but in their opinion the results did not justify recommending it for postmenopausal women. Androgen therapy undoubtedly has a place in the treatment of carcinoma of the breast with metastasis. Pearson and his co-workers have stated that it will produce objective improvement for an average of 7½ months in 23 per cent of such patients in all age groups. When one is considering using it, it is well for him to bear in mind that androgen may accelerate the growth of mammary cancer and that it may be converted into estrogen in some patients.[10, 11, 12, 13]

Estrogens have benefited some of the malignant metastatic lesions of the breast in postmenopausal women, but one should proceed with caution in using them, since about 50 per cent of malignant tumors of the breast have been shown to be estrogen-dependent.[10] At the Mayo Clinic, we have as yet established no set procedure for the employment of these various forms of therapy, and we are now conducting a study of this entire problem.

We have made little use of adrenalectomy as a means of controlling metastatic carcinomas of the breast through the restriction of estrogen. That procedure is, as yet, in the experimental stage. Results from institutions where it is being more frequently used should continue to be carefully observed.

Hypophysectomy, either surgical or radiologic, also is an experimental measure. Hypophysectomy eliminates pituitary hormones, depresses ovarian and adrenal function and thus tends to produce remissions in metastatic malignant lesions of the breast. We have used it little, for though we think it gives considerable promise, we want more time for observation of the remissions that it induces.

Cortisone has been used in an attempt to control malignant lesions—particularly those involving the prostate or breast. It appears somewhat hazardous, for about 10 per cent of it seems to be converted to androgenic compounds in the body. The remissions which it induces are usually brief, and we are inclined to use it only when other measures have failed. It does exert a supportive effect on critically ill patients having pain, anorexia and depression, and it tends to stimulate appetite and induce some euphoria.

Chemotherapy. During the past 15 years, a number of chemical substances having a selective antagonistic action on malignant cells have been used with some success. Of them, nitrogen mustard has been found to have an effect on tissue almost identical with that produced by radiation. It pos-

sesses some advantages over radiation in that it does not cause initial tissue edema; it acts more rapidly than radiation; and its side effects such as nausea and vomiting are less prolonged. It is particularly suited for the treatment of lymphosarcoma (especially Hodgkin's type), chronic lymphocytic leukemia, mycosis fungoides and bronchogenic carcinoma (especially the small-cell type). In lymphosarcoma, it may be used interchangeably with radiation therapy. It is especially suited for use in lymphosarcoma when any of the following criteria are evident: systemic involvement with fever; loss of weight; malaise; pruritus; marked involvement of the skin; mediastinal involvement with bronchial obstruction; or failure of the disease to respond to radiation. Its effect may be noted in one or two days, but in our experience the remissions which it induces do not persist so long as do those resulting from radiation. The nausea and vomiting which it may induce usually begin one hour after treatment, and usually disappear in a few hours. We give nitrogen mustard intravenously, but care must be used in its administration because of its locally toxic effect on tissue. We give a total dose of 0.4 mg. per kilogram of body weight. We formerly gave this in divided doses over four days, but we now ordinarily give it in two equally divided injections on two successive days. Its maximal effect on the blood occurs in two or three weeks, and the course should not be repeated in less than six weeks, or preferably eight, since it continues to exert its effect for eight weeks. As regards complications, we are less concerned about leukopenia than about depression of platelets and the danger of hemorrhage. All patients should have platelet counts before treatment is initiated.

At the Clinic, we have no set plan of treatment in lymphosarcoma, for we feel that each patient is an individual problem. In most cases, radiation therapy still seems to be the treatment of choice, particularly when a definite focus of disease has been found. Nitrogen mustard may be used cautiously in certain circumstances when the blood picture seems to prohibit radiation treatment. For malignant disease of the lungs, nitrogen mustard can be used with relative safety, for the dangers of complications from depression of platelets ordinarily do not exist. It should be mentioned that we and others[14] have used the drug for intracavitary injection in serous effusions owing to malignant disease. our results to date have been less gratifying than have been those of some others who have reported.

Triethylene melamine (TEM) is a mustard-like compound which can be given orally and which has an effect apparently identical with that of nitrogen mustard. In our experience, the results obtained are less predictable, and considerable variation exists in patients' tolerance of the drug. Close supervision of patients undergoing treatment with this drug is therefore necessary. It should be given after a fast, and the optimal dose is probably not more than 2.5 to 5 mg. daily, with a total dose of 10 to 30 mg. per course. The drug does not cause nausea and vomiting.

Urethan has been used in the treatment of multiple myeloma and chronic myelogenous leukemia, but the unsatisfactory long-range results obtained in the latter condition have led us to employ it infrequently. Its chief disadvantage is that it produces fairly consistent gastrointestinal side effects such as nausea, anorexia and occasionally diarrhea. We have preferred to give it orally in a solution of 0.5 Gm. to a teaspoon, but it may also be given in 0.5-Gm. enteric-coated capsules. The danger in the latter method is that the capsule may remain intact during its passage through the intestinal tract. It is occasionally given intravenously in doses of 4 Gm. daily, and we have given it by rectal suppository in doses of 1 Gm. Tolerance to the drug varies considerably, and we have tried to maintain a dosage level just short of that which produces side effects. From 1.5 to 3 Gm. daily is usually satisfactory. Patients under treatment will usually learn to control side effects by discontinuing the drug for a day or a week as they find necessary. Leukopenia will develop in all patients, and in rare instances hepatic necrosis will result. For that reason, occasional blood counts should be made, and studies of liver function should be carried out at intervals of three to six months. Supplementary measures of importance in the treatment of patients with multiple myeloma are the use of a Taylor brace when spinal lesions are present, focal or spray radiation therapy and, occasionally, steroid hormone therapy. Results obtained are not spectacular, but in a rare case there may be dramatic improvement for several years.

Folic-acid antagonists such as aminopterin and amethopterin, together with steroid hormones and antipurine compounds such as 6-mercaptopurine have been used individually or in combination in the treatment of acute leukemia, and the best results have been obtained in children. Folic-acid antagonists and 6-mercaptopurine tend to depress the bone marrow, and the over-all therapeutic results obtained have been of some academic interest, but generally they have been disappointing.

In the treatment of chronic granulocytic leukemia, 1-4-dimethanesulfanyloxybutane (Myleran) has been used. It is a useful drug which produces results somewhat similar to those obtained by radiation, and it can be administered orally.

Triethylene phosphoramide (TEPA) and triethylene-thiophoramide (Thio-TEPA) are substances originally thought valuable in the treatment of malignant melanoma, but in our experience the results have been disappointing. Most recently, they have been claimed to be valuable in the treatment of metastatic carcinoma of the breast.

Illustrative Case. One example of the beneficial effect of these forms of palliation is afforded by a patient who entered the Mayo Clinic in August,

1953, with an extensive and incurable malignant lesion of the prostate gland. On examination, he was found to have marked anemia, uremia and evidence of osteolytic and osteoblastic metastasis throughout his spinal column and ribs. On admission, he was given several blood transfusions, and then bilateral orchidectomy was done. Estrogen therapy was begun, and in various forms it has been continued since. He has received roentgen therapy to his bones and more recently to his hypophysis, and at times, he has received steroid hormonal therapy. On this program he has regained his weight, led a fairly comfortable existence and worked at his job for many days. One particularly interesting feature of his situation, and one that lends encouragement for cases of this kind, is that recalcification and even new bone have been noted in some of the ribs previously destroyed by metastatic involvement.

We have also seen multiple pulmonary metastasis disappear under similar circumstances.

Pain-Relieving Drugs. Irrespective of what measures of treatment are used for the patient with metastatic malignant lesions, it can be assumed that a time will finally come when some type of pain-alleviating drug will have to be employed. It is likely that such a drug may constitute the sole means of alleviating pain. Under these circumstances, although it is imperative that each patient should be spared as much pain as possible, it is also necessary for the patient's benefit that analgesic drugs should be used with forethought and discretion. Once an analgesic drug has been instituted, it may never be possible to discontinue such therapy. Some tolerance will always occur with the continued use of the drug, and the dosage will have to be increased to the point at which it is no longer effective, and at which a search must be made for another, more powerful analgesic. Further, it is important that in many instances the establishment of extensive tolerance to any one drug will automatically decrease the effectiveness of all others. At the present time, there is no satisfactory substitute for morphine or its derivatives when pain must be controlled in the terminal phase of disease.

It is astonishing how frequently aspirin or Emperin will control pain in its early stages. Later, when necessary, either of them can be combined with codeine given orally, and still later, when necessary, with codeine given subcutaneously. When codeine no longer seems effective, meperidine hydrochloride (Demerol) may be used intramuscularly, and its dosage increased to the point of tolerance. The latter drug, unfortunately, has only about one-eighth the analgesic effect of morphine, and unfortunately too, its use may produce rapid tolerance to the point where its effect wears off in 1½ or 2 hours. Methadone hydrochloride is another analgesic agent which some people think has an effect equal to, and longer lasting than, that of morphine. In addition, many think that patients' tolerance of it increases no more than minimally when it is given only two or three times daily by mouth. Dilaudid, levorphanol tartrate (Levodromoran), Pantopon, Metopon and Dolophine are other analgesics which have been used successfully to control the pain of incurable malignant lesions.

Morphine will usually be found valuable when other drugs have failed, and it does have the fortunate quality of alleviating anxiety as well as pain. It is well to bear in mind that 5 to 10 mg. of nalorphine hydrochloride (Nalline), given intravenously, will counteract the depressant respiratory effect of morphine and its derivatives. Tranquilizing drugs such as chlorpromazine (Thorazine) and Equanil, in addition to the analgesic drugs just mentioned, may give considerable relief to some patients.

COMMENT

In addition to all of the foregoing, it will, of course, be necessary in the treatment of seriously ill patients to employ all of the known skills of nursing care to aid the patient, to care for wounds and to improve the atmosphere of the sickroom. Besides, one must have all of the unpublished knowledge of good medicine, which no one knows so well as does the general practitioner. The fight is always a difficult and disheartening one, but even though our attempts to cure the disease have been unsuccessful, the increasingly numerous weapons at our command and the knowledge that the patient has been definitely aided and strengthened by our efforts should bring us some comfort.

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The Treatment of Leukemia in Adults

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ALTHOUGH A CURE for leukemia has not yet been found, the armamentarium of agents effective against the disease is constantly growing. Roentgen rays occupy a very important and time-honored place in the treatment of the disease, but chemotherapeutic agents are assuming increased importance. It is because of the multiplicity of agents now available and their varying effectiveness in the different types of leukemia that a brief review seems to be indicated.

In the past, attempts to cure leukemia by massive doses of various therapeutic agents more often resulted in disaster to the patient than in disaster to the leukemia. Today, therapy is directed at palliating the symptoms and arresting the progress of the disease, rather than at attempting a cure. Whether by irradiation or by chemotherapy, only enough treatment in usually given to produce a remission. If at all possible, another drug or further x-ray is held in reserve for future exacerbations.

Remissions may be complete or partial. The disappearance of clinical symptoms and the return of hematologic findings to normal is judged to constitute a complete remission. A partial remission exists when clinical improvement has occurred without a return of hematologic values to normal. It should be noted that criteria for remissions vary considerably from investigator to investigator.

Clinical remissions involve symptomatic improvement such as disappearance of fever; improvement in general well-being, weight and appetite; regression of enlarged organs; disappearance of bone pain; healing of mouth ulcers; and improvement of the hemorrhagic tendency.

Hematologic remissions are evidenced by a return of blood values toward normal, qualitative and quantitative improvement of peripheral leukocyte counts, and alteration of the bone marrow toward normal.

In adult patients, the entire spectrum of leukemic disease is encountered. One sees all degrees of maturity of cells and of acuteness or chronicity of disease. Most progress in therapy has been made in the control of chronic leukemias. Although results in the treatment of acute leukemia are markedly inferior to those in the treatment of the chronic disease, a significant number of remissions do occur. Perhaps equally important is the relief of symptoms that can be afforded to patients, even as the disease progresses inexorably.

The use of the proper agent at the proper time in a leukemic patient requires that the physician have a knowledge of the effects and of the limitations of the various types of therapy now available.

CHRONIC LEUKEMIA

Chronic Lymphocytic Leukemia. The treatment of choice in chronic lymphocytic leukemia is external radiation. The presence of the disease and a high leukocyte count do not necessarily constitute indications for treatment. Many patients remain relatively asymptomatic for months or even years after the diagnosis has been made. When symptoms such as loss of weight, progressive anemia, increasing fatigue, pressure symptoms from enlarged viscera, hemorrhagic manifestations, or painful or disfiguring local infiltrative lesions make their appearance, treatment is indicated. In general, patients with high leukocyte counts are symptomatic.

The methods of administering radiation therapy vary somewhat. In patients who have neither splenomegaly nor symptomatic lymph-node masses, we prefer to give total-body x-ray in doses of 5 to 15 r. daily. If such enlarged organs are present, 50 to 100 r. daily are directed at them. Treatment is usually terminated as the leukocyte count reaches about two-thirds of its original level in patients with initially high counts. Usually, the leukocyte count continues to fall for a few days following irradiation. Subsequent courses of therapy are often necessary.

Response to irradiation therapy is usually pronounced in the early stages of the disease. Enlarged lymph nodes regress in size, the sense of fatigue disappears, and the anemia disappears or improves. Gradually, however, the patients grow more refractory to treatment. Remissions may be of a few weeks' duration, or may last for several years. Usually, repeated courses of irradiation are needed at varying intervals.

An alternative form of irradiation is provided by radioactive phosphorus (P^{32}). This isotope, usually administered intravenously, has a mechanism of action similar to that of external irradiation. Because of the simplicity of external irradiation, and because of the more pronouncedly depressant effect that P^{32} has upon hematopoiesis, we have preferred external radiation in most instances.

When and if chronic lymphocytic leukemia evolves into an acute phase, irradiation becomes

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contraindicated, except that occasionally it can be used in small doses to reduce distressing local infiltrates or enlarged organs.

Several chemotherapeutic agents are effective in the therapy of chronic lymphocytic leukemia. Nitrogen mustard (methyl-bis [B-chloroethyl] amine hydrochloride) (HN_2) (mechlorethamine) and a related compound, triethylene melamine (TEM), are the most popular. TEM has the advantage of being effective orally. Its main disadvantage is a lag of two or three weeks before its maximal effects occur. Since patients with chronic lymphocytic leukemia are often unusually sensitive to low doses of the drug, there is always a possibility of bone-marrow depression from an overdose of TEM. Often, remissions can be produced by means of doses of 2.5 to 5.0 mg. of TEM orally, or by 0.2 to 0.4 mg. per Kg. of body weight of nitrogen mustard intravenously.

Occasional patients refractory to all the agents thus far mentioned may respond to other drugs of the nitrogen-mustard family, such as triethylene thio-phosphoramide (Thio-TEPA) in intravenous or intramuscular injections of 2 to 10 mg., given in varying schedules.[1]

If any of these drugs are used in the presence of leukopenia or thrombocytopenia, considerable caution is necessary. With any form of therapy, daily leukocyte counts are recommended during treatment and for a few days afterward.

A troublesome and not uncommon complication of chronic lymphocytic leukemia is a severe acquired hemolytic anemia. Steroids such as cortisone in doses of 100 to 300 mg. per day, or prednisone in doses of 10 to 100 mg. per day are helpful in reducing hemolysis. In rare instances, splenectomy may be advisable. Repeated blood transfusions are usually mandatory for the replacement of lysed red cells.

Drugs which are contraindicated in chronic lymphocytic leukemia are folic-acid antagonists, 6-mercaptopurine, Myleran and Colcemid. Urethane is of no value.

Chronic Myelocytic Leukemia. Although chemotherapeutic agents have achieved their greatest usefulness in the treatment of chronic myelocytic leukemia, external irradiation has thus far maintained its position as the simplest and most effective therapeutic agent in most cases. The indications for its use in this disease are essentially the same as in chronic lymphocytic leukemia—namely, increasing fatigue and weakness, enlargement of the spleen or liver, rising leukocyte count, progressive anemia, or hemorrhagic symptoms. Total body irradiation is employed in patients without significant splenomegaly, but spot x-ray to the spleen is employed if that organ is enlarged. The dosage is similar to that used in chronic lymphocytic leukemia, and therapy is regulated by means of daily white blood cell counts and the symptomatic response of the patient. Treatment should be discontinued before the leukocyte count reaches normal, since a further decline can be anticipated for several days after the cessation of therapy. A significant fall in hemoglobin, leukocytes or platelets is a warning to stop treatment.

As with chronic lymphocytic leukemia, the best response to therapy occurs after the first exposure, and there are progressively poorer responses during subsequent courses. Remissions may last weeks or years. Rather than the leukocyte count, the appearance of symptoms should determine subsequent therapy.

Radioactive phosphorus (P^{32}) may be used effectively in chronic myelocytic leukemia as an alternative form of radiation therapy. Lawrence[2] gives 1 or 2 millicuries per week for four to eight weeks. Sturgis[3] prefers to give 5 to 7 millicuries every four to six weeks until the desired effect has been obtained, or until toxic symptoms intervene. The total dose by either method is between 5 and 30 millicuries.

At the present time, the most effective chemotherapeutic agent for chronic myelocytic leukemia is Myleran (1, 4-[methyl-sulfonyloxy] butane) (G.T. 41). It is usually administered in oral doses of 4 to 6 mg. per day, although Wintrobe *et al.*[4] have reported giving as much as 24 mg. per day in courses totaling 84 to 850 mg. Repeated courses may be effective, but to a decreasing degree. Galton[5] has administered the drug in doses of 0.5 to 8.0 mg. per day as maintenance therapy, his objective being to keep the leukocyte count between 10,000 and 20,000 cells per cu. mm.

The chief toxic effect of the drug is thrombocytopenia, though doses of less than 6 mg. per day rarely produce it. Frequent platelet and leukocyte counts should be employed as checks against overdosage, and reduction of dosage or cessation of the drug when platelet levels begin to fall will usually prevent serious hemorrhage. A rise in platelets will usually occur within four to five days after the cessation of therapy. A rising hemoglobin level, decreased spleen size and subjective improvement are better indications of approaching remission than is the leukocyte count.

Though Urethane is an effective drug in chronic myelocytic leukemia, it is of limited usefulness because of its toxicity. Doses of 1 to 4 Gm. orally will often produce remissions in four to seven weeks. Irritative symptoms of the gastrointestinal tract and depression of the bone marrow are the usual toxic effects. In rare cases, renal and hepatic damage may result from its use.

Colcemide (desacetylmethylcolchicine) (Demecolcine) has been used successfully in producing remissions in chronic myelocytic leukemia.[6] Oral doses of 3 to 10 mg. per day are employed. It appears to be less effective than Myleran.

Fowler's solution (potassium arsenite) is rarely used at present in chronic myelocytic leukemia, but in conjunction with radiation therapy it may sometimes be helpful in prolonging remissions.

Nitrogen mustards, TEM and Thio-TEPA are

effective in producing remissions in early stages of chronic myelocytic leukemia. Later, the leukocyte count may fall without concomitant improvement in symptoms.

The best drug for treating the acute blastic stage of chronic myelocytic leukomia is 6-mercaptopurine. Doses of 2.5 to 5.0 mg. per Kg. per day are often effective. Toxicity at this range is low.

Steroids are sometimes necessary for the control of hemorrhagic symptoms due to the thrombocytopenia accompanying chronic leukemia, and they are also of value in the treatment of severe hemolytic anemia secondary to the leukemia. Blood transfusions are also valuable adjuncts to therapy.

Chronic Monocytic Leukemia. This disease is rarely seen, for most cases of monocytic leukemia take an acute course. X-ray therapy is often beneficial, though it is usually less effective in monocytic than in other chronic leukemias. Urethane and Fowler's solution are said to be effective at times. Repeated blood transfusions and antibiotics are frequently necessary for the control of infections.

ACUTE LEUKEMIA

Acute leukemia in adults is a devastating and uniformly fatal disease. Treatment consists of supportive measures such as transfusions, antibiotics and analgesics, and of specific drugs such as steroids and antimetabolites.

Blood transfusions are vital elements of therapy in all cases of acute leukemia. Whereas Hayhoe and Whitby[7] have attributed a specific antileukemic action to multiple transfusions, other investigators[8] have not been impressed with the specificity of transfused whole blood in producing remissions in the acute disease.

Antibiotics have proved highly valuable in combatting the various infections that are common in many patients with acute leukemia. Steroids are of great usefulness in the control of symptoms in severe cases. One usually notes reduction of fever, control of hemorrhage, and increasing appetite and general well-being within hours or days after the institution of these compounds. Remissions are sometimes produced by these agents, particularly in acute lymphocytic leukemia. Cortisone is administered in oral doses of 100 to 300 mg. per day, and prednisone in doses of 10 to 100 mg. orally is equally efficacious. ACTH may also be used in intravenous doses of 80 mg. per day.

Of the antimetabolites, folic-acid antagonists such as Aminopterin (4-aminopteroyl-glutamic acid), Amethopterin (4-amino-N^{10}-methyl-pteroyl-glutamic acid) (Methotrexin), and Amino-an-fol (4-aminopteroylaspartic acid) constitute one valuable group. Their structural relationship to folic acid enables them to block the actions of folic acid in nucleic acid metabolism and cytopoiesis. Aminopterin is usually given in oral doses of 0.25 to 1.0 mg. per day, whereas Amethopterin ordinarily is administered in doses of 2.5 to 5.0 mg. per day.

Of equal or greater value in the treatment of acute leukemia in adults are the purine antagonists such as 6-mercaptopurine and Azaserine. These drugs depress nucleic acid synthesis by interfering with adenine and hypoxanthine utilization. Because of its low toxicity, 6-mercaptopurine is often preferred to folic acid antagonists in the treatment of acute leukemia in adults. Dosage is ordinarily 2.5 mg. per Kg. of body weight per day (usually 100 to 200 mg. per day), but 5.0 mg. per Kg. per day may occasionally be necessary.

Acute Lymphocytic Leukemia. Steroids and antimetabolites, either singly or in combination, are the treatment of choice in most cases of acute lymphocytic leukemia. Though these agents produce results inferior to those obtained in children, a significant number of mature patients are benefitted.

Most authorities rely upon an antimetabolite such as 6-mercaptopurine or Aminopterin as the basic drug. They add steroids if they cannot wait for the action of the antimetabolites, or when the patient has become refractory to those drugs.

As regards both steroids and 6-mercaptopurine, we prefer to use both drugs in treating severely ill patients, but if the patient is less severely ill, 6-mercaptopurine may be given alone. As the patient responds—usually two or three weeks after the beginning of therapy—the steroid is gradually tapered off. Occasionally, patients may respond to 6-mercaptopurine within a few days, but usually two to three weeks elapse before the effect becomes evident. When a remission has been produced, the dose of 6-mercaptopurine is adjusted downward until one finds an amount that prolongs the remission, yet does not overly depress the bone marrow. When a remission occurs, we have preferred to continue a relatively low maintenance dose of the drug, rather than stop it completely. A relapse, when it eventually occurs, signifies the development of resistance to the effects of 6-mercaptopurine. Since there is no cross-tolerance among steroids, 6-mercaptopurine and folic-acid antagonists, the leukemia may then respond to one of those other compounds.

Acute Myelocytic Leukemia. Fewer remissions occur in acute myelocytic leukemia than in acute lymphocytic leukemia. At best, chemotherapeutic agents will produce remissions in no more than 25 to 30 per cent of patients.

The treatment of choice seems to be 6-mercaptopurine, with or without a steroid. As in the therapy of the acute lymphocytic type, steroids and 6-mercaptopurine may be started concomitantly. If a remission occurs, the steroid may be gradually reduced until a maintenance dose of 6-mercaptopurine can be instituted. If 6-mercaptopurine produces no effect, a trial with a folic-acid antagonist is warranted.

Cortisone alone is often used for the subleuke-

mic type of acute myelocytic leukemia. But we have not hesitated to use antimetabolic drugs in some cases.

In contrast to most investigators, Bierman[9] has reported that Myleran has caused improvement in 50 per cent of his acute myelocytic leukemia patients. He found 6-mercaptopurine and folic-acid antagonists to be less effective. It has been our experience, as well as that of most others who have reported,[9] that Myleran is ineffective in acute leukemia of any type.

Acute Monocytic Leukemia. Regardless of the type of treatment employed, remissions are rare in acute monocytic leukemia. Occasional ones may follow the use of either 6-mercaptopurine or a folic-acid antagonist, and because of its lower toxicity, 6-mercaptopurine is perhaps preferable. Steroids are almost invariably needed to control hemorrhagic symptoms and other menacing aspects of the disease, and multiple transfusions are frequently necessary.

Because of a possible accelerating effect on the progress of the disease, Wintrobe *et al.*[10] have questioned the advisability of using steroids in acute leukemia of the myelocytic or monocytic types. But we have found these fast-acting drugs quite useful in the early control of severe leukemic symptoms. It has not been our impression that the disease is accelerated.

Among the agents which are of no value or which are contraindicated in acute leukemia are x-ray (except locally), P^{32}, TEM, nitrogen mustards, Colcemide, Fowler's solution, Urethane, TEPA and Thio-TEPA, and probably Myleran.

SUMMARY

The management of leukemia in adults involves the use of irradiation and chemotherapeutic agents. External irradiation remains the treatment of choice in chronic leukemia of any type. P^{32} is a valuable alternative method of radiation therapy. TEM, nitrogen mustards and Thio-TEPA are often valuable in chronic lymphocytic leukemia. Myleran is quite effective in patients with chronic myelocytic leukemia. Other less effective agents for this disease include Colcemid, Urethane, Fowler's solution, nitrogen mustards, TEM, Thio-TEPA and 6-mercaptopurine.

In acute leukemia, steroids and antimetabolites in varying sequences or combinations provide the most effective therapy.

Blood transfusions and antibiotics are important ancillary measures in all forms of leukemia.

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Traditional Ideas on Athletics Are Refuted

Several of the 10 articles on sports medicine in the November 17 issue of JAMA were concerned with disproving notions about athletics that long have had unquestioning acceptance from coaches, players and the general public.

Drs. Peter V. Karpovich and Crighton J. Hale, of Springfield, Massachusetts, reported finding that general warming-up—including massage, hot showers, and general exercise aimed at raising body temperature—does not improve an athlete's performance. They didn't test the effectiveness of formal warming-up—going through the movements to be used in the actual performance of the sports activity. And they didn't question the importance of such preparation for improving coordination. But provided that the player isn't actually numb with cold, they concluded that raising body temperature has no part in improving performance.

According to an article by Drs. T. B. VanItallie, Leonardo Sinisterra and F. J. Stare, of the Department of Nutrition at Harvard, eating red meat just before a football game may make a player think he is stronger and thereby improve his play, but it probably has little physical value.

Popular beliefs to the contrary notwithstanding, a JAMA summary of a study made at Michigan State University showed that athletes live just as long and die of the same causes as do non-athletes. Information was gathered on 1,130 athletic letter winners and on 1,130 non-athletes who were individually matched as to years of attendance at Michigan State University and ranging in dates of birth from 1855 to 1919. No significant differences in longevity and cause of death appeared between the groups. The distribution of causes of death, including cancer, central nervous system diseases, heart disease, and sickness or accidents, was approximately the same for the athletes and non-athletes in the study.

The Growing Problem of Industrial Dermatitis

LEONARD F. WEBER, M.D.

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INDUSTRIAL DERMATITIS is a medical problem of considerable magnitude. The growing number and complexity of manufacturing processes are increasing the opportunities of harmful contact, and have brought the problem close to many practitioners outside the field of dermatology.

Many physicians devote full time to occupational medicine, but there are not enough of these specialists to provide adequate service to industry in some areas. Plants with fewer than 400 employees frequently depend upon the services of general physicians. It is often said that the private physician is not qualified by training or experience to diagnose occupational diseases. Klauder, in a recent article, states that "the general practicing physician is not qualified in this respect, nor, in my opinion, are certified dermatologists unless they have had additional training and experience."

Dermatologists have asked me where they can obtain additional training in occupational dermatology. My advice to them, and to general practitioners in small communities who must accept these cases, is to visit and inspect the industrial plants from which their patients are referred. Not until the physician has a personal acquaintance with the occupational irritants that his patients handle will he be in a position to determine the sources of their dermatoses. Visits to the plant should be repeated, thereafter, whenever the doctor finds a case of possibly occupational dermatitis for which the external cause is not obvious.

It is understandable that anyone can make an occasional mistake in the diagnosis of occupational dermatitis and in the discovery of its cause, but frequent errors indicate a failure in approach. The physician who is unwilling to devote the extra time and thought necessary to the successful management of such cases should not undertake to care for them.

A large portion—at least 65 per cent—of occupational diseases consist of dermatoses, and another portion is made up of industrial accidents that are complicated by cutaneous diseases. At any time examinations are undertaken, 1 per cent of all workers are found to suffer from occupational dermatitis. Thus it is likely that in any industrial community of 10,000 workers, there will be 100 cases of occupational dermatitis. On the basis of this fair estimate, every physician in Iowa must be aware of and interested in occupational dermatoses.

At a recent conference on the "Education of Physicians for Industry," held at the Mellen Institute, it was generally agreed that "occupational medicine is that branch of medicine that deals with the relationship of man to his occupation, for the purpose of the prevention of disease and injury and the promotion of optimal health, productivity and social adjustment." A recent poll of members of the American Academy of General Practice has disclosed that about 93 per cent of its members are interested, more or less, in occupational medicine.

DEFINITIONS OF TERMS

The words *occupational* and *industrial,* although not synonymous, are used interchangeably by members of industrial commissions. *Occupation* is defined as "an employment, business or calling." *Industry* is defined as "systematic work or labor; habitual employment, now especially in . . . manufactures." Thus, housewife's dermatitis is occupational, whereas a similar eruption in a plater handling chromium compounds is industrial dermatitis. The diagnosis of "industrial dermatitis" should entitle a worker to compensation, and "occupational dermatitis" may entitle a worker to compensation. A housewife so affected by the work she does in her home is not entitled to compensation. If she is employed by a family other than her own, her housewife's dermatitis is compensable, or at least it is in many states. Regardless of these somewhat legalistic definitions, however, all of these ailments are essentially dermatitis.

Occupational dermatitis is an inflammation of the skin caused by direct action of occupational irritants upon its surface. The cardinal signs of inflammation are redness, swelling, heat and pain or itching. A dermatosis is any disease of the skin, inflammatory or otherwise.

CAUSES

Occupational dermatoses have predisposing causes and actual ones. There are many predisposing causes, but until pre-employment examinations are made routine, it is almost useless to enumerate them. Non-occupational dermatoses—particularly those with itching—may predispose an individual to occupational dermatitis, for the

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patient may rub the occupational irritants into his skin through scratching.

The actual causes of occupational dermatitis are many. Some years ago I published a list of several hundreds of external agents, other than water, which have been found to be responsible.[1] The continued growth of industry and the development of new materials add new hazards. Direct causes in the cases that I have seen in my practice during the last few years have been as follows, in order of frequency:

Primary irritants	25 per cent
Trauma and accidental injury	20 per cent
Sensitizing substances	18 per cent
Wet work	12 per cent
Cleansing agents	10 per cent
Oil	10 per cent
Physical and biological agents	3 per cent
Other causes	2 per cent

Primary irritants. The chemical causes of occupational dermatitis are primary irritants and sensitizers. A group of consultant dermatologists to the Public Health Service gave this definition: "A primary cutaneous irritant is an agent which will cause dermatitis by direct action on a normal skin at the site of contact if it is permitted to act in sufficient intensity or quantity for a sufficient length of time."

A primary irritant causes mild to severe inflammation—redness to ulceration. The objective signs are localized to the skin which comes into contact with the irritant. This is usually one of the distinguishing characteristics of primary irritant dermatitis. We are all familiar with such primary irritants as acids, alkalis and nonaqueous solvents. Solvents are indispensable in a variety of occupations, particularly those of machine operators and machinists. They cause localized dermatitis, mild to severe, and sometimes extensive inflammation. Primary irritants may occasionally be sensitizers.

Sensitizers. A complete list of sensitizing agents cannot be given here, but mention of the principal groups will serve as a reminder that the worker may encounter one or more where least expected. These groups are: dye intermediates; dyes (fur and hair, leather and fabric); photo developers; rubber accelerators and anti-oxidants; insecticides and fungicides; cosmetics; oils; resins (natural and synthetic); coal tar and its direct derivatives; explosives; plasticizers; plants; and woods.

Water (Wet Work). The commonest cutaneous hazard acting upon the skin externally is water. We are all familiar with the effects of prolonged immersion of the hands in water. The palms are affected with maceration first because they lack the protecting coating of sebum.

Dermatitis in workers at "wet" jobs constitutes a daily problem in my practice. Water is justly called the universal solvent. It is essential in many industries such as tanneries, dye works, paper mills, and food and beverage plants. Water alone, water and soap, and alkaline salt detergents cause trouble for bartenders, scrubwomen, barbers, beauty parlor operators, janitors, kitchen workers, soda fountain clerks, waitresses and bottle washers. Not only does water cause skin diseases, but if dryness of the skin is not maintained, many cutaneous diseases cannot be treated successfully. The surgeon recognizes the fact that microorganisms do not grow on a dry skin. Wet work can enable pathogenic microorganisms to gain a foothold during the healing of a wound, or during the course of a dermatitis.

Physical Agents. Burns are a common form of damage by physical agents, and unfortunately they are still being treated with butesin picrate and sometimes by furacin. The number of minor burns whose overtreatment has caused secondary dermatitis, followed by weeks or months of disability, is unbelievable.

The antiseptics used on minor cuts and abrasions frequently cause dermatitis, and these cases are common in my practice. The chief offender that I have found in the last few months has been tincture of merthiolate.

Another physical agent that still causes a problem is x-ray. Even today, roentgen-ray dermatitis is still to be seen in physicians. Of equal importance is the introduction of x-ray into industry for the detection of defects in metal. Lack of supervision in its use is the cause of permanent damage to the skin in some workers.

Biological Agents. Instances of dermatitis from biological agents are not numerous. However, I see many cases of monilial paronychia. Again, those chiefly affected are cooks, waitresses, bartenders and others who have wet hands more or less constantly.

UNDERLYING CAUSES

That many factors and functions of the body may play a role in producing an altered reaction of the human skin is apparent in Belisario's enumeration of underlying causes:[2]

1. Disturbances of metabolism
2. Dietary disturbances
3. Allergy
4. Psychosomatic influences
5. Hormonal influences
6. Vitamins
7. Functional factors
8. Pathologic factors
9. Focal sepsis
10. Bacterial flora of the skin
11. Pathogenic organisms
12. Debilitating diseases
13. Anatomic factors
14. Physiologic factors, including climate.

One must take all of these factors into consideration in arriving at an accurate and complete diagnosis of a dermatosis caused, or influenced, by occupation.

DIAGNOSIS

The diagnosis of industrial dermatoses is based upon a careful history, a complete physical examination and an adequate knowledge of the

worker's exposure to occupational irritants, if any.

Many times I have asked myself which should come first, the history or the physical examination. It is my practice to make the examination first and to take the history later. If the patient is examined a second time, this procedure is often reversed.

Physical Examination. A common cause of error in diagnosis is the failure to examine the entire body, including the scalp and mouth. A patient's word that his eruption is limited to his hands, as is often the case in workers, should never be accepted as final. Non-occupational diseases are often discovered if stripped examinations are routine. Occupational dermatitis may even be confined to the covered parts, and sometimes the patient is able to offer a reasonable explanation for the development of contact dermatitis in an unusual area.

History. History-taking in occupational cases is an art in itself, particularly in patients who have non-occupational dermatoses for which they would like to get care at the expense of their employers. Usually the history is relatively simple if the disease is actually occupational in origin. That is, the various links complete the whole chain without much trouble. The time-consuming history is the one related by a patient with a non-occupational dermatosis—whether common or uncommon. If such an individual is attempting to represent it as occupational in origin, he "knows" that his work can be the only cause for his skin disorder. The suggestion that there may have been some other cause, such as an irritant used at home, is likely to be resented, particularly if the patient is a woman. The patient's final argument is that the eruption always lessens in severity during weekends and becomes worse on Monday or Tuesday. It is interesting, in such cases, to ask that the patient report on Monday morning for examination. In most instances it will be found that the eruption is just as bad as ever, but the patient can always be expected to have a reasonable explanation for the lack of improvement on that particular occasion.

It is often helpful to take the history a second time. Though it will be found that the patient does not repeat the story exactly, the discrepancies and additions are not necessarily indications of attempted fraud. In the interim, the patient may have thought of things that hadn't occurred to him during the initial interview.

Form of History. I believe that physicians who treat industrial cases should follow a standard form in their history-taking. Too many are willing to make a diagnosis of occupational dermatitis without making a thorough examination of the skin, and most of them fail to take into consideration the various irritants which may have been responsible. Many patients with contact dermatitis are not exposed to irritants in the course of their work, even though such substances may be used in their places of employment. Instead, they are having trouble as the result of using irritants in their homes.

If the physician will follow the short history outline that I have used for many years, I believe he will find it helpful:

Date: .....
1. Employer: ..... Address: .....
2. Employee: ..... Address: .....
3. Occupation: ..... Age: ..... Sex: .....
4. Referred by: ..... Insurance Carrier: .....
5. Patient's Complaint: .....
6. Previous Disease of the Skin: .....
7. Present Disease. Date of Onset: .....
8. Sites Affected, in Order: .....
9. Changes in Character: .....
10. Objective Symptoms (Site): .....
11. Type of Skin Reaction. Acute Inflammatory: .....
    Chronic Fissured: ..... Follicular and Acneform: .....
    Granulomatous: ..... Pigmentary: ..... Burns: .....
    Ulcers: ..... Stigmata: .....
12. Treatment to Date: .....
13. Laboratory Findings: .....
14. Work. Previous Jobs: .....
15. How Long With Present Firm: .....
    Duration of Present Job: .....
16. Substances Handled: .....
17. Cleansing Process at Factory and Home: .....
18. Changes in Substances or Cleaning: .....
19. Other Workers Affected: .....
20. Work Outside of Plant: .....
21. Hobbies: ..... Irritants in Home: .....
22. Industrial Irritants: .....
23. Type of Industrial Agent: (1) Mechanical: .....
    (2) Physical: ... (3) Biological: .... (4) Chemical: ...
    Mode of Action: (1) Primary Irritant: .....
    (2) Sensitizer: ..... (3) Corrosive: .....
24. Exposure to Occupational Irritants (Positive or Negative): .....
25. Patch Tests. (Reason for or against): .....
26. Eruption Improved After Cessation of Work: .....
27. Recurrences on Exposure: .....
28. Diagnosis: .....
29. Based on: .....
30. Occupational or Nonoccupational: .....
31. Change of Occupation: .....
32. Disability. (How Long): .....
33. Remarks: .....
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OVERTREATMENT

I am putting overtreatment ahead of treatment for two reasons. First, it is frequently a cause for the presence, for the severity or for the persistence of the dermatosis when it is first seen by the specialist. Secondly, its avoidance is a cardinal principle in treating diseases of the skin.

It may be the patient himself who was responsible for overtreatment, or the culprit may have been the man behind the drug counter or some well-meaning physician who isn't very well versed in cutaneous diseases. The temptation to apply a topical remedy to a visible eruption—to try it and see how it works—is almost irresistible. Dermatologists would have much smaller practices if this were not so, for an impressive proportion of their patients suffer from efforts to cure what may have begun as minor dermatoses. Overtreatment dermatitis is a well-known entity in the office of the specialist; indeed nowhere is overtreatment more frequently diagnosed. If it was a physician who prescribed the original lotion or ointment, he may never learn of its catastrophic effect, for the patient is unlikely to return to him. And of course

he will not hear of the prevalence of such cases from the detail man who introduced him to the medicament.

TREATMENT

There is a more plainly demonstrable cause for occupational dermatoses than for most of the other ills that a physician is asked to treat. Successful management, therefore, depends primarily upon accurate diagnosis and upon determination of the cause and any contributing factors.

Workers with mild occupational dermatitis should be provided with protective clothing and gloves to reduce or prevent contacts between occupational irritants and their skin. Protective applications such as boric acid ointment and Lassar's paste help to relieve acute inflammatory dermatoses. At the least, they are unlikely to cause additional irritation of the skin, as many proprietary preparations and antipruritic remedies do.

Patients with acute dermatitis are removed from their work in order to prevent their coming into contact with occupational irritants. At the beginning of treatment, the patient should be informed about the probable course of his disease, for many people are inclined to worry unduly about it. During the acute stage when there are vesicles and swelling, wet dressings are soothing. One may use an ounce of aluminum acetate solution, or an ounce of boric acid or sodium bicarbonate to a quart of cool water. Regardless of the solution, the most important part of the treatment is the frequent change of wet dressings, for the skin is kept cool by that means.

If pustules or secondary infection of the skin have been added to the dermatitis, wet dressings of potassium permanganate solution, 1:8000, are indicated. I have found that if patients with dermatitis of the hands will soak them in this solution for 15 to 20 minutes at a time, eight or nine times a day, bacterial infection can be removed from the skin. When the vesicles and swelling have been replaced by scales, Lassar's paste may be applied. Occasionally a shake lotion is comforting, but overuse may cause excessive dryness of the skin. If this occurs, a bland ointment should be substituted—plain petrolatum or boric acid ointment, for example.

In long-standing dermatitis with thickening of the skin and itching, modified crude coal tar (U.S.P.) is helpful. Coal tar 5 per cent in zinc oxide paste is a useful antipruritic, but one should keep in mind the possibility that tar may cause sensitization of the skin. This is more likely to occur after exposure to sunlight.

Briefly, the therapy for occupational dermatitis consists of mild and soothing applications. It has been my experience that patients who are suffering a great deal are usually willing to cooperate in the treatment I outline for them. Those who complain about the treatment are usually ones who have mild occupational dermatitis and are not too anxious to work.

REASONS FOR FAILURE OF TREATMENT

An article on occupational diseases directed to general practitioners in a state with a large industrial population contained the following paragraph:

"Occupational dermatoses are the most frequent of the industrial diseases, and result from exposure to chemicals which act as primary skin irritants or as skin sensitizers. Incidentally, it is characteristic of these dermatoses that the symptoms disappear when the person is taken away from the working environment and usually reappear on re-exposure unless preventive measures have been taken."

Just a word of warning: Dermatologists who have had considerable experience with occupational dermatitis find that this is not always so. It is not uniformly the rule for cases to clear promptly after work exposure has ceased.

Correct diagnosis and avoidance of overtreatment have already been stressed. Attention to these primary considerations will obviate the chief causes of failure in treating industrial dermatitis. But a number of other factors may play a role, and these have been the subject of a helpful paper by Morris.[3] He discusses the following, among others:

1. The patient's failure, sometimes deliberate, to follow the physician's advice in re-exposing his skin to chemicals
2. "Hardening," or increasing resistance to treatment due to long exposure
3. Superimposed sensitization dermatitis from systemic treatment of secondary bacterial invasion
4. Superimposed vesicular dermatitis from penicillin given for respiratory or other unrelated diseases
5. Dermatophytosis of the feet, which makes any hand eruption difficult to control
6. Exposure at home to additional irritants such as ammonia or gasoline
7. Serious nervous upsets which can cause persistence or exacerbation of eruption
8. Discharge of worker from job after eruption has cleared, and subsequent recurrence of the difficulty
9. Exposure to excessive heat and cold
10. Failure to follow treatment outlined
11. Receiving as much money from compensation as from work (Many dermotases have been cured by the employer's making a lump-sum settlement, or closing the patient's department and announcing that only well workers are eligible for transfer to another.)
12. Use of "miracle drugs" which may allay but not cure a dermatitis

13. Use of protective creams after eruption develops
14. Simultaneous treatment by two or more physicians
15. Patch tests' causing flare-up of eruption
16. Allergic background
17. Pre-existing skin disease only accentuated by occupational factor
18. Underlying focus of infection
19. Continued use of contaminated clothing
20. Polysensitization.

PREVENTION

The prevention of occupational dermatitis has not received the attention from employers that it deserves. I believe the time will come when employers will have all prospective employees examined, particularly if they are to be placed in hazardous occupations. Proper selection of workers who are to be exposed to occupational irritants is of considerable importance, and could result in a significant decrease in the incidence of occupational dermatitis. Pre-existing cutaneous disease should be looked for.

Proper protection of the worker by adequate shielding of machinery, proper ventilation and protective clothing is equally important. Many employers neglect inspecting their factories to determine possible hazards.

The removal of irritants from the skin with the use of noninjurious cleansers is of utmost value. Generally speaking, many workers pay too much attention to cleanliness, and are inclined to use strong cleansing agents such as harsh soaps and solvents.

MEDICOLEGAL ASPECTS

We think of the majority of cutaneous diseases caused by occupational factors as "occupational diseases," rather than as "occupational accidents." *Accident* can be said to designate an event which takes place fortuitously and at a fixed time, contrary to one's foresight and expectations. It is an event which proceeds from an unknown cause, or is an unusual effect of a common cause, with the result that it is unexpected. *Occupational disease* means an ailment that results from the nature of a particular employment. The word *nature*, as I have just used it, does not refer to conditions brought about by the employer's failure to furnish a safe place of work. Rather, it refers to conditions to which all employees of a particular class are subject and which produce the disease as naturally incident to the particular occupation, and attach to that occupation a hazard that distinguishes it from the usual run of occupations. The feature that distinguishes an accident from a disease is the element of time. An accident is sudden and consists of a single episode. It implies immediacy. A disease occupies a period of time and is the result of repeated exposures.

In some states, *injury* is the word used in reference to any disability or disease that has arisen out of employment. Other states have no provision with respect to occupational diseases, yet most of them permit a recovery of damages for such diseases whenever it can be shown that a primary injury has caused a subsequent disease. Gradually, the statutory definition of the term *accident* is being broadened to include any disease, provided that it is related to a known external cause. Regardless of our previous concepts, and regardless of medical definitions, the words *disease* and *accident* are in the process of being interpreted by our courts.

SUMMARY

Industrial dermatitis is one of the commonest complaints in medicine today, and must often be treated by physicians insufficiently schooled in the subject. No one should undertake such a responsibility unless he is willing to devote extra time to a study of possible causes in local industries, and in individual patients.

A detailed history and a complete physical examination are essential. Correct diagnosis and strict avoidance of overtreatment are of paramount importance. Definitions of occupational and industrial dermatitis have been given, and medicolegal aspects have been touched upon. Causative and contributing factors have been enumerated. Suggestions for treatment, reasons for failure of treatment, and preventive measures have been briefly outlined.

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Plan to Attend the

ISMS ANNUAL MEETING

April 28-May 1, 1957

Industrial Noise and Occupational Deafness

C. STEWART NASH, M.D.

ROCHESTER, NEW YORK

So far as the problem of industrial noise and occupational deafness is concerned, I have nothing to sell and I have nothing to buy. But circumstances not of my own seeking have placed me in a position of being able to observe this predicament from many points of view and over a long period of time.

I shall present this subject as a drama in one act. There will be two scenes.

SCENE I: THE PROBLEM AS IT CONCERNS ME

As a budding otologist I became interested in the deaf and the hard-of-hearing, and this interest, along with certain efforts that I made toward the conservation and rehabilitation of hearing directed me into chairmanships of county and state committees on deafness, and ultimately fashioned me for the presidency of the American Hearing Society, a position that I held for 6½ years.

When the AMA and the American Academy of Ophthalmology and Otolaryngology became engrossed in the problems of the deaf and the hard-of-hearing, I was a natural choice for their active and advisory committees. During my 18 years on the AMA committee, I helped formulate the so-called Fowler-Sabine method of evaluating hearing loss, but I voted *against* its acceptance, and I was the cause of its demise. When the AAOO established a Committee on the Conservation of Hearing and later formed a Subcommittee on Noise in Industry, I was rather promptly made a member of both groups.

Never have I seen a coterie of doctors—and there were five of us—invested with so much real and potential power as were the members of the Subcommittee on Noise in Industry. Its decisions could affect literally thousands of employers and employees, and involve millions and millions of dollars. In the complement of the Subcommittee, I was the only one with any actual experience in dealing with the subject, and in our deliberations concerning rules and policies that were of most serious import to industry and to the nation's economy, I was able only by dint of forceful persuasion to protect big and small business from the naivete of my colleagues and the ardor of certain labor leaders. Right or wrong, and with or without proper cumulative data, we members of this Subcommittee on Noise in Industry had been asked, as representatives of the medical profession, to issue guides on rules and policies governing the problems of noise in industry and occupational deafness long before we were competent to do so. If, as time went on and as our experience increased, it was necessary for us to change some of our recommendations and policies, no one should have been surprised. Likewise, when the AMA and the AAOO appointed a joint "Committee of Eight" to devise a new and satisfactory replacement for the inacceptable AMA method of evaluating hearing loss, you can see how these organizations might have considered me for the chairmanship of that group.

Because of the underlying knowledge that my observation and practice had furnished me, I was solicited as a special consultant for concerns in heavy industry, and I was also retained by their insurance carriers.

Impressed by this rather rich experience, and apparently confident of my honesty and impartiality, labor offered me a position as *its* consultant—a post that I formally turned down, but informally accepted and still hold.

Although the chairman of the Workmen's Compensation Board of the State of New York considered me daubed with the smudge of big business, the influence of the Associated Industries of the State of New York brought about sufficient pressure to force my appointment as a member of the Medical Advisory Committee of that body.

Here, then, ends Scene I, in which I have given you some of the steps which led me deeper and deeper into the medical aspects of industrial noise and occupational deafness.

SCENE II: THE PROBLEM AS IT CONCERNS OTHERS

Have you ever observed a class in painting or pencil sketching? Did you ever notice how different in concept and projection are the representations of the same object that appear on the canvases of different individuals? The art teacher will tell you that these different representations come about because of the different positions of the observers with reference to the object observed. He will also inform you that every projected concept or idea is influenced or colored by the special proclivities and inclinations of those who are doing the observing.

I should like to say once again that circum-

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stances placed me in a unique position for observing this problem of noise in industry and occupational deafness authentically and officially. I have been able, from time to time, to stand in the position of each of the interested parties. Each of them thinks that his way of looking at the situation is the correct one—the one that everyone should have.

Please understand me. The differing resultant evaluations of the problem—and of its solution as well, for a solution is also a part of the picture—in no way involves a question of integrity or lack of it. None of the observers can be regarded as guilty of intentional distortion. Instead, as far as I can determine, the varying concepts represent honest differences of opinion.

Shall we liken the problem of industrial noise to some impersonal force or wraithlike specter that is accused of burdening innocent workers in heavy industry with the curse of deafness and a ringing in the ears? You know that industrial noise has been with us for many years, but only recently has it been subjected to inspection and study.

Because at present all the states of the Union provide compensation for injuries sustained during legitimate employment, and because certain labor leaders prompt their men to hold their employers responsible for occupational deafness as well as for other on-the-job injuries, there are some places in which workers who have contracted that disability in the course of their work are laying claim to adequate recompense.

The compensation aspects of occupational deafness, interestingly enough, have not been brought to the fore by the worker himself, but by labor representatives. These latter individuals place the problem before industry, the insurance carriers, the compensation commissions and the otologists, saying, "Here it is!" Picture the situation as you see fit.

For purposes of comparison, let us consider (1) what is happening in a community where there are workers employed in industries having noise levels sufficient to produce occupational deafness, but where a compensation problem does not at present exist, and (2) what is happening in similar communities where the compensation problem is real and acute.

Where there is no active problem—i.e., where labor has been aroused neither to the significance nor to the potentialities of occupational deafness, or for other reasons has let it remain inactive—certain industries have shown a tendency to play the ostrich game. Or if industry gives countenance at all to the possibility of a compensation problem in occupational deafness, it has played down its importance and has said, "Let sleeping dogs lie."

Mind you, as an impartial observer of this problem I do not criticize that quiescent attitude. As a matter of fact, in certain instances and from the point of view of expediency I might subscribe to it as best for both labor and industry. But one must be realistic enough to recognize that if there is a long-standing noise environment of sufficient severity to produce occupational deafness, a medical problem is present, and industry must sometime face both the medical and the compensation aspects of it.

In my experience, plants having no noise problems or only minor ones are more likely to attack the problem of occupational deafness ahead of time, than are those where the compensation problem is potentially more acute. One can understand both points of view.

In communities where the problem of noise in industry is real and acute, there have been all sorts of reactions—all of them colored and influenced by the interest of responsibility of those concerned. To labor, to industry, to the insurance carriers, to the compensation commissions and to the research worker, the problems are very genuine and are fraught with physiological and financial implications. My particular qualification in discussing this subject is that I have officially represented each of the groups just mentioned, and that I have personally observed the reactions and inter-relations of these groups.

Shall we look over the shoulders of each of these participants to ascertain the kind of picture each individual or group is painting of the subject? Shall we see how the problem of occupational deafness looks to each particular artist? Shall we guess at the dominant idea and observe motifs that each particular group accentuates, and see how that accentuation influences its concept of the problem?

The Worker. Certain workers in heavy industry see their opportunity to receive compensation for industrial deafness as no more than their just desert and, indeed, one that has long been overdue. They are willing and ready to comply with any reasonable examinations and investigations concerning their deafness, but they feel that it is they who should decide whether an award should be paid while they are still employed or after their retirement. Interestingly enough, however, there are many workers who have considered a recompense for occupational deafness as a legacy or windfall, rather than as a compensation for the impairment that they have sustained. Only secondarily can an acoustically affected worker become interested in the correction of the cause for occupational deafness, for his own particular injury has already been sustained and is irremediable. Labors' tardiness in demanding that conditions be altered in plants where there are acknowledged damaging noise levels should not be thought to reflect lethargy or unawareness. Labor is well informed about the problem and about its potentialities.

Industry. How different is the picture from industry's point of view? Although business wants

the worker reasonably compensated for a deafness that has actually been caused by the conditions of employment, it does not want to be exploited. Industry knows, for instance, that damages paid to workers for occupational deafness will add to manufacturing expense and that a plant which has an active compensation problem in occupational deafness will be put into a poor competitive position as regards other concerns that do not.

You can understand how hard it is to pass on to the ultimate consumer an expense levied against one manufacturer and not against another. Though both have the same occupational deafness situation, only one is being required to compensate workers for such injury.

The problem of accrued liability is also important. Where is industry to get the money to pay awards for a disability contracted years ago, one against which it has accumulated no contingent reserves?

The Insurance Company. The insurance company is industry's agent and broker. It collects the premiums, pays the awards and protects industry against exploitation. As far as I can tell, the guesswork or speculative aspect of compensation insurance is a thing of the past. Today we have escalator premiums, policy ceilings and Lloyds of London to take care of the super-ceiling awards. Thus the onus of occupational deafness is passed back to industry, which in turn attempts to pass it to the ultimate consumer, who is none other than the worker who received the award.

The insurance carrier's program for meeting the industrial noise problem includes such items as: (1) suggestions for reducing or eliminating the cause of occupational deafness, (2) helpful hints in choosing a method of evaluating hearing loss that will be equitable to labor but not unfavorable to industry, and (3) the use of discretion in the acceptance of questionable risks.

Adjudicating Bodies. Workmen's Compensation Boards and industrial commissions are adjudicating bodies that may or may not have political complexions. Those which are relatively non-political are more stable in their application of rules and policies than are those which are admittedly political. At a dinner in his honor, the newly appointed district administrator of a workmen's compensation board declared that he really liked to make awards.—Well, who doesn't? With all due respect to the duty of a referee to make such awards, my experience compels me to entertain the thought that the burden of proof in compensation hearings has shifted from the claimant to the insurance company. Incidentally, the referee has the authority and the right to choose which medical opinions he will accept as the correct ones as regards the extent and type of the worker's deafness, and he also has a preogative in regard to the method of evaluating a hearing loss. Amenable as adjudicators are to the recommendations of impartial advisory bodies such as the AMA and the AAOO, my point is that the referee may, if he chooses, set aside all prescribed medical recommendations and render whatever judgment is, in his own opinion, the proper one to make.

Research. Now let us see how the research worker looks at the problem of industrial noise and occupational deafness. If by creed or calling there is anyone who should be objective and impersonal, the research worker should be that man. But can anyone be truly objective and impersonal? That question, I fear, is one that labor and industry may ask if and when they face unwelcome findings or recommendations of research organizations. "A tentative theory or supposition provisionally adopted to explain certain facts and to guide in the investigation of others" is an acceptable principle in research, but it should, in my opinion, be painstakingly differentiated from a dominant, unproved, preconceived idea. Pure research is indeed a *rara avis.*

MISCELLANEOUS INFORMATION

How serious is this problem of noise in industry? How many workers has it affected? What number of industries does it involve? What are its implications? The answer: Who knows?

When research establishes some acceptable criteria regarding safe and unsafe noise levels, regarding dangerous types of noise and concerning the contributory effect of the places within which industrial noise exists, why not classify industrial plants according to the degrees of noise hazard they present? Such a classification and study might help in the reestablishment of rates based on a greater spread of responsibility.

How is industry to protect itself against the payment of compensation for non-occupational deafness that either antedated employment or came on concurrently with it? Certainly pre-employment examinations will protect the employer against a claim for any deafness that had its inception before the start of the individual's employment. But non-occupational deafness incurred during employment is a diagnosis that is difficult to establish.

In 1953, the Committee of Consultants on Occupational Loss of Hearing of the Workmen's Compensation Board of the State of New York presented a statement in regard to over-all noise levels and occupational deafness. It said, in brief: (1) "Most persons exposed for several hours daily to noises at intensity levels about 120 decibels, whatever the 'composition' of the noise, will in a matter of months suffer permanent damage to hearing." (2) "To most industrial noises at 'overall' levels of 100 to 120 decibels, exposure for several hours daily for a long period of time will cause permanent damage to hearing in a considerable proportion of persons, the proportion being higher the more closely the noise approaches the intensity level of 120 decibels and the more the noise is dominated by high-pitched components." (3) "The hearing of a few very susceptible persons

may be permanently damaged by exposure for many years to certain noises at levels between 90 and 100 decibels."

The medical director of the Corning Glass Works related to me that the over-all noise level in which a compensation claimant worked had been 82 decibels, and he said he was glad to learn that fact, for the referee had wanted to establish by this particular case that the critical noise level for occupational deafness in the State of New York was 90 decibels. When I remarked that the over-all level of 90 to 100 decibels applied only to the unusual and susceptible ear, and that the dangerous level is usually over 110 decibels, he told me that according to the referee in the case about which he had been telling me, any ear that becomes deaf in industry is a susceptible ear.

When one considers that street noise, as measured in my automobile with the windows open at a suburban intersection in Rochester, New York, is 96 decibels, he can then understand that the problem of industrial noise—at least by the interpretation of one referee—is *not* going to be limited to the sphere of *heavy* industry.

Headaches Caused by Inhalant Allergies

RALPH C. CARPENTER, M.D.

MARSHALLTOWN

Headache is perhaps the commonest abnormal sensation that human beings experience. Because of the erroneous but widespread belief among many people—including not a few of our medical confreres—that most headaches are due to affections of the nose or paranasal sinuses, a large number of these sufferers eventually find their way to otolaryngologists. A few years ago, it was not uncommon for the otolaryngologist to decide forthwith that the pains that the unfortunate individual was experiencing were not due to abnormalities in his sinuses or nose, and to dismiss him without a suggestion of where next he should seek relief from his discomfort. In consequence, the patient then drifted to the ophthalmologist, to the neurologist, to the dentist, etc., and despite having been relieved of a deviated septum and a few teeth, fitted with the latest in eyeglasses, fed a variety of different analgesics and advised to reorganize his life, he concluded his perigrinations with his headache still intact. By then, he was ready to accept his yoke of discomfort as inescapable.

Only in the past few years has the subject of headaches had a thorough airing in rhinologic literature, but at present the otolaryngologist should be well informed as to the vagaries and vicissitudes in the diagnosis of any such problem. But except for an occasional paper, little attention has been paid to one of the aspects of the problem—inhalant allergies. That is the topic which I shall discuss, for though it is not one of the usual etiologic factors, it is at times very important.

CLASSIFICATIONS OF HEADACHES

To approach the headache problem rationally, one must have an understanding of the various etiologic possibilities. Many classifications have been proposed from time to time, but in recent years they have been logically separated into two distinct groups: (1) vascular and (2) non-vascular. The following breakdown has been modified from the one proposed by Hansel[1] and Ouer.[2]

Vascular

1. Allergies
   - a. Foods
   - b. Inhalants
     - (1) Dust, molds, pollens, etc.
     - (2) Osmyls (perfume, etc.)
   - c. Endocrines (ovaries, etc.)
2. Migrainous Types
   - a. Classical migraine
   - b. Migraine variants
     - (1) Ophthalmic
     - (2) Ophthalmoplegic
     - (3) Status migrainous
     - (4) Abdominal
3. Tension
4. Histaminic cephalgia (Horton)
   - a. Typical
   - b. Atypical
5. Hypertension
6. Arteritis (temporal, etc.)

Non-Vascular

1. Intracranial
   - a. Meningeal irritation (meningitis, hemorrhage, syphilis, etc.)
   - b. Lesions producing pressure (tumors, abscesses, hematomas, etc.)
   - c. Post-lumbar puncture
2. Nasal or paranasal sinus
   - a. Sinusitis (infection and/or allergy)
   - b. Structural abnormalities (septal spurs, etc.)
3. Otitic
4. Ocular
5. Neuralgic (trigeminal, glossopharyngeal, etc.)
6. Pyrexic, toxic, uremic
7. Psychogenic

8. Endocrine
   a. Thyroid (hypo- or hyper-)
   b. Others
9. Post-traumatic
10. Myalgic (cervical)
11. Hypoglycemic
12. From temporomandibular-joint syndrome (Costen)
13. Oral (dental, etc.)
14. Osseous (from arthritis, discs, etc.)

The possibility that a specific hypersensitivity can produce headache has been recognized for many years, and most observations have been directed to the etiologic relationship of these sensitivities in the production of migaine. In 1931 Eyermann[3] described a group of headaches that did not correspond to the recognized migraine pattern in that the preceding cortical features were replaced by nasal blockage and mucoid discharge; the pain was frequently frontal, diffuse or bilateral; and there was a following, or often accompanying, abdominal discomfort and nausea, with or without vomiting. He noted a high incidence of food sensitivity, but also found positive reactions to inhalants. In two cases, he felt that the headache had been induced by exposure to inhalants as well as to foods. Instead of *allergic migraine,* he proposed the term *allergic headache* as the proper designation for this syndrome. In 1932, Rinkel and Balyeat[4] confirmed Eyermann's observations.

Also in 1932, Goltman[5] reported a series of unusual cases of migraine in which skin reactions were positive to certain inhalants such as pollens, orris root and animal hairs. Satisfactory relief from the headaches was not obtained until the patients had been hyposensitized to the inhalant sensitivities. In 1933, Forman[6] recorded a similar series of cases, and Sheldon and Randolph[7] did the same in 1935. For a number of years thereafter, the literature was barren of such reports, and the subject was not revived until quite recently, when the mechanisms of various headaches had become more clearly defined.

I agree with Shuey[8] that one would experience great difficulty in immediately classifying any given headache as an allergic cephalgia solely on the basis of the history that the patient recites. Since there is usually nothing typical of such cases, there are no characteristic pain patterns. Quite as Kern[9] recently said, "The central nervous system provides one of the commonest of allergic symptoms: headache. Allergic headaches are of the most varied kinds, ranging from a dull generalized ache to the severest migraine." Many observers have stressed that in the beginning, at least, the pain has a frontal location. At first it centers over either eye, or occasionally in the occipital region. Later, it may become generalized over the entire head. The severity of the headache is often proportional to the amount of contact the patient has had with the offending allergen.[10]

Davison,[11] in a study of a large number of cases of cerebral allergy, found that the commonest cause was food allergy, although some were due to inhalants such as dust, and a few were due to the inhalation of food odors, particularly onion or cabbage. The outstanding symptoms were sleepiness, mental retardation, confusion, etc. In the past, several authors have stressed the important fact that fatigue is the foremost symptom of food allergies. It could readily be an expression of the cerebral effect of the allergy, as Davison has noted. On careful questioning and observation, many individuals with the fatigue syndrome have been found to be suffering from headaches, among other things. Therefore, the probability of an allergy looms large in an individual with headache and fatigue.

The characteristics of the onset of the headache may provide a clue to an allergic etiology. Hansel[1] states that the onset is usually gradual, since the mechanism of the allergic headache is not based on a vasoconstrictor-vasodilator action, but on capillary permeability and edema. In addition, there are several other characteristics that may direct one's attention toward an allergic etiology. These are (1) a personal history of allergic disturbances such as eczema, angioedema, urticaria, allergic rhinitis, etc., (2) a strong family history of allergies and (3) concomitant allergies such as seasonal and perennial rhinitis, urticaria, etc.

After one's suspicions have been aroused, it is well for him to remember that foods are more likely to produce cerebral reactions than inhalants are. Thus, foods should be considered first. Milk, wheat, egg, chocolate, nuts, pork and coffee are perhaps the most important.

Several etiologic types of allergic headache have been mentioned, but as I have already said, there are no characteristics by which they can be readily differentiated, one from another. The specific diagnosis must wait upon a determination of the degree of severity of exposure to specific allergens, the allergic load that is present at the time of examination, the location of the allergic reaction in and around the head, and the nature of the reaction—whether it be vasodilation, edema or something else.

However the frontal type of allergic headache, which has been very well discussed by Ogden,[12, 13] has been most frequent, in my experience. Ogden describes a syndrome of frontal pain which is present in a large percentage of patients with respiratory allergy. The pains are usually bilateral, they may appear in the absence of definite nasal symptoms and they may last from an hour to several days. Because the pain may also appear in the vertex and occipital regions and face, they may therefore coexist with other headache patterns. An inhalant antigen or histamine released as a part of

the allergic reaction, he thinks, could produce pain through its vasodilating effect upon a sensitized artery. The involved vessels are probably the anterior and posterior ethmoidal branches of the ophthalmic. (It also has an anterior meningeal branch.) The basis for Ogden's belief is that pain relief, he has found, can frequently be secured through the use of vasoconstrictor drugs such as the ergotamines. Others,[14] however, have felt that the site of pain was at the ostia of the sinuses (the interior of the sinuses being relatively insensitive to pain), and have thought localized mucosal edema is responsible for the discomfort.

The pathologic phenomena that occur in headaches are many and varied. The well-known work of Wolff and his collaborators[15] was the first great contribution to our understanding of the physiopathology of head pain. Since then, several outstanding studies have appeared, especially those of Hilger, who linked autonomic imbalance with vascular phenomena. Still others[1, 16, 17, 18] have added considerably to our knowledge of the effect of allergic response upon the vascular and the other tissue systems. A complete discussion of this aspect is not within the scope of this presentation, but one can be found in any of the references that I have cited.

DIAGNOSIS

Diagnosis of inhalant allergic headache is made by (1) a never-ending suspicion of allergic etiology behind every functional headache, (2) a detailed and accurate history, (3) identification of the allergen by history and skin tests, and (4) relief of symptoms consequent to specific avoidance and/or hyposensitization. I cannot overemphasize the advantages of a good history. Taking a satisfactory one requires time and patience, and is not a job that a harried examiner can accomplish. Several sessions of questioning may be necessary, for in addition to providing invaluable information, the interviews can have a distinct and valuable psychologic effect upon the patient. He is reassured, and thus relaxed, for at last he feels that he has found someone who is really interested in his plight. I find that any of the headache-history outlines can be a time-saver and an aid to accuracy. Skin tests are invaluable aids at times, but one must be cognizant of their limitations. Negative results do not rule out a possible allergy, nor do positive ones prove that one is present. When one is investigating elderly individuals, it is well to remember their lowered skin reactivity. As for foods, skin tests are not very reliable, and I use, instead, the abstinence-refeeding procedure that has been outlined by Rinkel, Randolph and Zeller.[19] For eosinophils, examination of nasal and pharyngeal smears stained by Hansel's technique is helpful, as are examinations of blood smears.

It is well for one to look for a subclinical hypothyroidism, as Jones[20] and Proetz[21] have pointed out. The basal metabolic rate is frequently normal, but abnormal values may be found for blood cholesterol and protein-bound iodine. Other diagnostic features are a subnormal afternoon temperature and a slow pulse.

Hypoglycemia sometimes produces headache, and one must not neglect to look for it. He can readily detect it by means of suitable laboratory tests.

Since headache in no more than a symptom, and can be evaluated only subjectively, the diagnosis of an allergic etiology must be made by inference and confirmed by specific avoidance, provocative testing and hyposensitization.

TREATMENT

The preferred treatment for inhalant allergy is, if possible, the elimination or avoidance of the offending allergen. But since, in many instances, neither of these courses of action is possible, hyposensitization is in order. My personal preference is the small-dose method, as outlined by Hansel. Serial titration of sensitivity as outlined by Rinkel and Randolph is frequently helpful, but non-essential. The usual doses range from 1:10,000 to 1:10,000,000, and the patient is given them at four- to seven-day intervals. For children and a few adults, I have used the sublingual route, using dilutions ten times stronger than those which are injected. These drops are made up in an alcohol-dextrose diluting fluid, and are given in doses of one or two drops, two to six times daily, depending upon the relief that is secured. Other concomitant sensitivities, especially food allergies, must be adequately treated.

Pre-edema Stage of Acute Attack. Epinephrine 1:1,000, in doses of .25 to .5 cc., may control the vasodilation. Dihydroergotamine (DHE-45—Sandoz) can be given in doses of .5 to 1.0 cc., intramuscularly. Better results are obtained if one combines epinephrine with the DHE-45, for it enhances the effect of the DHE-45 and permits the use of smaller doses of it.[22] Cafergot tablets can be used, with two or three tablets as the initial dose, followed by one tablet every half hour, up to six tablets. If vomiting occurs, any of the various types of rectal inserts such as Pentergot, E.C. 110, etc., can be substituted.

Edema Stage of Acute Attack. The preceding measures are usually ineffectual. If so, it is recommended that Neo-Calglucon 20 per cent be given intravenously in 10 cc. doses. Three cubic centimeters are injected rapidly, followed by a pause until the flushing fades; then another 3.0 cc. are given; there is another pause; and then the final 4.00 cc. are given.[23]

Interval Treatment. Since there are some individuals in whom, for various reasons, allergic management fails to produce the desired relief, we must be ready to use other measures. Histamine is of definite value, and according to Hansel's tech-

nic, it should be given by injection every three or four days. The range of dilution should be from 1:100,000 to 1:100,000,000, and the average dose is .1 cc. of the 1:10,000,000 dilution. If an attack of headache follows, the dose should be reduced to the next weaker dilution, and after relief has been obtained, the dosage should not be changed. With the histamine injection, one may combine a small dose of DHE-45 (.1 to .3 cc.). The allergen may be combined with them in the same syringe.[22] One may also use sublingual histamine advantageously, using the same method as for the allergen. It is well not to use sublingual drops on the day of an injection, because of the possibility of overdose.

Some other medications can be suggested. Small doses of thyroid extract may prove effective, and large doses of ascorbic acid will have some action in preventing tissue edema.

For therapy of autonomic imbalance, there are two possibilities. The first is Bellergal, a combination of 0.3 mg. of ergotamine tartrate (a sympathetic inhibitor), 0.1 mg. of Bellafoline (a parasympathetic inhibitor) and 20.0 mg. of phenobarbital (a central sedative). The dosage is usually one tablet 15 minutes before meals and at bedtime. The second of them is rauwolfia, .25 mg. orally, three times daily. The side effects of this dose are minimal, and consist of nasal congestion, a mild drop in blood pressure and a slight drowsiness.

Cortisone is useful in those cases of allergic headache that have failed to respond to all types of medication when the cause cannot immediately be ascertained and when the situation is desperate. The dose is 200 mg. in four divided doses daily for a couple of days. At the end of that time the dose is reduced to 100 mg., and later it is reduced gradually to a maintenance amount.[24] Instead, one may use the more recently introduced drugs of the prednisone-prednisolone series.

Antihistamines may at times be useful to tide a patient over until an adequate treatment schedule can be instituted.

CASES

Case No. 1. Miss L. M., 21, had had noctural headache for several years. Pain came on after she went to bed, but did not interfere greatly with her sleep. She almost always awakened with a dull head pain that gradually disappeared after she got up. The pain was dull and generalized. There were no nasal symptoms, except for a mild nasal blockage that she noted in the morning. She had no allergic history, either personal or family. She worked in a greenhouse, wrapping flowers and plants, but had not noted any symptoms at work. Previous treatment had consisted of a variety of prescriptions—analgesics, hormones, dietary manipulations, sedatives, etc. But they had afforded her no more than partial relief. Her headaches were the same when she was away on vacations. Her physical examination was essentially normal.

Because the previous dietary survey appeared to have been inadequate, the possibility of a food allergy was investigated through the use of an abstinence-refeeding regime, but the results were negative. Skin tests for the common inhalants were then done. The reactions were negative except for a feather mixture, which was 2+ positive.

Following the removal of pillows from her bed, the patient's headaches subsided completely, and they could be reproduced by replacement of the pillows. A foam-rubber pillow was substituted for her feather-filled one, and when she has to go away from home, she carries a dust-proof, zippered pillowcase with her.

Case No. 2. Mrs. B. T. had been under my care for a house dust and mold allergy for several years prior to 1953. These had produced nasal symptoms, and with hyposensitization and avoidance of known allergens, she had had satisfactory relief. In 1953, she began to complain of a dull frontal headache that appeared at odd intervals. For several days at a time she would be entirely symptom-free. A few times while she was out for the evening she developed a headache. She felt that there must be something in my office that tended to give her a headache for the rest of the day.

A thorough recheck of history and new contacts elicited nothing new. The dust and mold allergy seemed under good control. Her diet had remained essentially unchanged. Further questioning finally revealed the possibility that the cause might be stick cologne, for she remembered that her headaches hadn't antedated her birthday and that stick cologne had been one of her gifts. Since then, she had used it exclusively. A trial of avoidance resulted in complete relief from the headaches. No attempt was made to determine the causative factor in the cologne. In the past, she had used various liquid colognes with no apparent difficulty.

Case No. 3. Miss J. H., 29, had been observed by another physician late in 1945 because of left nasal obstruction, with a left suppurative maxillary sinusitis. A left polypectomy and left intranasal antrotomy were done. Afterward, she had had a long series of treatments, which at times seemed to have produced partial improvement.

In 1948, when she came under my observation, she showed some pus in the left ethmoid area, and some polypoid tissue was present. The antrotomy opening was patent, and the maxillary sinus was clear. Nasal smears showed a preponderance of polymorphs and 1+ eosinophils. Her mother was subject to periodic headaches.

I didn't see her again until 1950, and saw her only at odd intervals until 1953. Then, for a few months, she had been having severe headaches which were largely frontal and in back of her eyes. A complete eye examination showed nothing abnormal. There had been a few episodes of nasal stuffiness and sneezing that were unrelated to the headaches. The nasal findings showed a little mucoid material in the ethmoid region and some

polypoid tissue in the left middle meatus. Because of the episodes of sneezing, complete skin testing was done, and a 2+ reaction to house dust and mixed molds was revealed. Skin titration showed end points at 1:10,000 dilutions. Following the first injection of .1 cc. of Endo house dust and .1 cc. mixed molds, her headaches were relieved, and the mucoid discharge disappeared for the first time in years. Maintenance therapy has been .2 cc. of each antigen at monthly intervals. In addition, the polypoid tissue in the region of the left middle meatus has disappeared.

Case No. 4, Mrs. J. D., age 36, came to see me in June, 1955, because for a year she had been having headaches, mainly frontal but at times generalized. Pains began anytime during the day, but she had no trouble at night. She had no nasal symptoms, nor had she had headaches until a year previously. She had been given various diagnoses such as "nervousness," "sinus trouble," etc., and had had various sedatives, nose drops and antibiotics, but had experienced little relief of symptoms. Examination revealed nothing abnormal, and careful questioning disclosed nothing as regards the cause of her headaches, but the patient finally volunteered one point that she had previously thought had no importance. At about the time when her headaches started, she had obtained a parakeet. It roamed through her house, and she noticed that it shed a fine, fuzzy material. A visit to a relative for ten days had given her complete relief from headaches, but the pains returned when she came back home.

The parakeet was removed from her house, and the house was thoroughly cleaned. In a couple of days, her headaches again disappeared and she has had complete relief except for one time when she went to a neighbor's house and handled a parakeet.

Case No. 5, Mrs. R. T., age 34, was first examined in April, 1955, because of a frontal headache from which she had suffered almost every day for the preceding six months. She had had occasional frontal pains previously, but she said that her present headaches were "different." The pain usually appeared when she awoke and lasted nearly all day, but did not interfere with her sleep. On advice of a physician, she had been taking 1.5 grains of thyroid extract for over a year. Because of the possibility of overdosage, thyroid medication was discontinued, but no change in the headache pattern was noted. A fasting blood sugar and a glucose tolerance test were normal. Careful and repeated questioning produced no additional information. The possibility of house dust as a factor was considered. Skin testing revealed a moderate positive reaction to Endo house dust; all other tests showed little or no reaction. Hyposensitization brought quick relief. When she started using dustproof mattress and pillow cases, and did her best to avoid contact with dust from other sources, the patient was able to discontinue her dust-hyposensitization injections without a return of symptoms.

CONCLUSIONS

1. An allergic basis should be considered in the evaluation of any functional headache.

2. Headaches may at times be produced by an allergic reaction to a specific inhalant allergen.

3. The diagnosis of an allergic etiology must be made by inference and confirmed by specific avoidance therapy, provocative testing and hyposensitization.

4. Some of the unsatisfactory results in the treatment of headache no doubt reflect a failure to recognize the presence of inhalant allergies.

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BABIES NEED TO CRAWL

Before learning to stand erect, infants must first train extensors of the back and hip joint. Crawling is the method by which they get that training, according to Dr. Saima Tawast-Rancken, of the University of Helsinki. He told the World Confederation for Physical Therapy that "playpens, employed too early, allow little crawling space and tempt the child to stand too soon, before back muscles are sufficiently developed." Leg position, he said, may be permanently disturbed by this premature loading.

State University of Iowa College of Medicine

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SUMMARY OF CLINICAL FINDINGS

A 76-YEAR-OLD WHITE woman was admitted to this hospital complaining of pain and burning in the legs of two weeks' duration, and weakness, anorexia and weight loss for about one year. She was able to sit up, but was unable to walk because of weakness in her legs. For years, constipation had been severe.

The patient's family doctor had obtained gastrointestinal x-ray studies on three previous occasions and had diagnosed her difficulty as diverticulosis. One and a half years prior to admission, the patient had noted loss of appetite, with frequent nausea and vomiting of watery material. She also had increased frequency of urination and nocturia. Her diet had consisted of orange juice and great quantities of milk and brown bread.

At the age of 25, she had been told that she had inflammation of the kidneys, hypertension and hematuria. Later in life, several similar episodes had occurred. A heart attack, with severe substernal pain, had occurred three or four years before admission. She had never had symptoms suggesting congestive heart failure.

Examination revealed that she was very weak, and she fell asleep frequently. Her blood pressure was 120/95 mm. Hg., and her pulse was 76 per minute and regular. Magenta-colored areas of purpura were present over her thighs, legs and ankles, ranging in size from small spots to large, confluent areas. Her tongue was red, and her teeth were carious and loose. The fundi showed moderate degrees of arteriosclerotic change, with a small striate hemorrhage in the right fundus. A systolic murmur was heard. A severe dorsal kyphosis was present. The heart was not enlarged. Examination of the abdomen, pelvis and rectum revealed no abnormalities. The extremities were weak and very atrophic. There was tenderness over the saphenous vein, and severe, generalized tenderness throughout both legs. Tendon reflexes were present and equal in both the upper and lower extremities. No abnormalities of sensation were detected. The Rumpel-Leede test was negative. The urine examination revealed a pH of 5.5, no sugar, 3 to 4+ albumin, and numerous white and red blood cells and granular casts, microscopically. The red blood cell count was 3.70 million per cubic millimeter, the white blood cell count was 36,400 per cu. mm., the hemoglobin was 11.4 Gm./100ml., and the differential count showed 93 per cent segmented polymorphonuclear leukocytes, 2 per cent band polymorphonuclear leukocytes and 5 per cent lymphocytes. The platelet count was 72,000 per cu. mm. The plasma ascorbic-acid level was 0.23 mg./100 ml. The blood urea nitrogen was 111 mg./100 ml., the creatinine was 5.9 mg./100 ml., the serum calcium was 10.4 mg./100 ml., and the serum phosphorus was 9.0 mg./100 ml. The serum sodium was 143 mEq./liter, the potassium was 6.3 mEq./liter, the chloride was 106 mEq./liter and the CO_2 content was 8 mEq./liter. The blood sugar was 147 mg./100ml.

Various diagnoses were entertained, including generalized malignancy, chronic glomerular nephritis, malnutrition and avitaminosis. Antibiotics were administered, and the intravenous fluids that were given included 1/6 molar sodium lactate, vitamins, potassium chloride and calcium gluconate. Urinary output ranged from 400 to 2,500 ml. per day. One week after admission, the CO_2 content was 16 mEq./liter. The patient gradually became more lethargic, and finally, on the twelfth hospital day, she was comatose. An electrocardiogram showed a right bundle branch block, with prolonged QT intervals and flattened T waves, and the patient expired on that same day.

CLINICAL DISCUSSION

Dr. Raymond F. Sheets, Internal Medicine: I think this patient had hyperparathyroidism. We'll go through the protocol, and I'll try to substantiate my opinion.

It is stated that the patient had had Bright's disease at the age of 25. I think we have to accept that as a fact, keeping in mind that most people who have Bright's disease recover from it, but that some do not. Our problem here will be to decide whether or not this woman recovered.

The next thing in her history is the so-called heart attack which occurred three or four years before her admission to this hospital. It is described as a severe substernal pain, with none of the ancillary symptoms, but nevertheless it may well have been a coronary occlusion with myocardial infarction. On the other hand, there is a possibility that the dorsal kyphosis which she is said to have had later on could have been the cause of her severe chest pain. She may have had radicular pain.

The next thing in the story concerns the three gastrointestinal x-ray studies. We don't know the dates on which they were made, but from them we know that a definite diagnosis of diverticulosis was made. Then, 1½ years before her admission, the patient had an episode of anorexia, nausea and

vomiting of watery material. Also at that time, she had frequency of urination. This may have been a bout of acute parathyroid hormone poisoning; at least an elevation of the serum calcium gives us reason for thinking so. It may have been precipitated by her diet, for we see in the next line that she ingested large amounts of milk. It has been observed that hyperthyroid patients who are getting along fairly well can have bouts of the acute type of the disease as a result of ingesting high calcium diets—ones containing either milk or therapeutic calcium salts.

The first paragraph of the protocol says that shortly before her admission the patient had pain and burning in the legs and again had anorexia, this time with weight loss and weakness. She was able to sit up alone, but weakness in her legs prevented her standing or walking. Also, we are told that she had had severe constipation for a long time. Again the hypotonicity of muscles which accompanies hyperparathyroidism could explain most of these symptoms. The deposition of calcium in the gut and in other organs may lead to constipation as well as to other gastrointestinal symptoms.

At this point, we must think of some other possible causes for the pain and burning in her legs, and one of them is pernicious anemia. But I don't think this is an important possibility, for there is no other evidence of it, such as a very marked anemia or signs of subacute combined sclerosis of the cord. The other thing that severe constipation and lethargy suggest to me is myxedema. That is one of the conditions one always has to think of in old ladies who are constipated and who like to sleep a great deal.

Now in the physical examination, the first noteworthy thing is the blood pressure of 120/95. Remembering that the patient did have a history of Bright's disease and realizing that if that were the primary cause of her difficulty she would have been dying of uremia, it is hard to explain her normal blood pressure. Ordinarily, the blood pressure is not normal in the final stages of chronic Bright's disease. A normal blood pressure fits well, however, with the diagnosis of hyperparathyroidism and kidney disease incident to it.

We noted that the patient had had a very poor diet, as well as anorexia. She had a red tongue and severe pains in the legs. The ascorbic-acid level of the blood was abnormally low. The purpura which was described over the thighs, legs and ankles, in areas ranging in size from small spots to large ones, could have been evidence of Vitamin C deficiency. But there's another explanation. Old ladies who are sick—and old men too—develop liver spots with little or no trauma. These may be large, and they may occur on any part of the body, although the commonest sites are the hands and the arms. The chances of her having a vitamin deficiency are quite good, but I can't be certain. If severe beriberi were the cause of the intense, generalized pains in her legs, I should also expect her to have had diminished reflexes in her knees and ankles, but she did not. Also, there was no disturbance of sensation. There was a hemorrhage in the right fundus, and if uremia or chronic nephritis were the predominant disease, I should have expected it to have been accompanied by cotton-wool spots and some other evidence of it.

Apparently she had had no hypertension, for the description indicates no enlargement of her heart. It is well known that blood pressure can be lowered under certain circumstances, even though it has been high for many years, but ordinarily the heart does not, at the same time, return to normal size.

The urinary findings were not specific, and they could be interpreted as indicating either chronic nephritis or nephrocalcinosis from hyperparathyroidism. There is no indication that there were large quantities of phosphate casts in the urine, but it is noted that there were granular casts. The white blood cell count was 36,000, and the differential count showed 93 per cent segmented polymorphonuclear leukocytes. I have no idea what the significance of those findings may be. I can find nothing else in the protocol to go with them. There is no other evidence of infection. The closest thing is the description of diverticulosis, and rather than make a guess that the patient had a ruptured gallbladder, an appendicitis or a ruptured diverticulum with peritonitis, I am going to ignore these data. I just can't offer any explanation with any degree of confidence.

Then we come to a crucial laboratory report which supports a diagnosis of hyperparathyrodism: serum calcium within normal range, 10.4 mg. The serum phosphorus was 9 mg. But since this lady hadn't been eating well and had been chronically ill for a long period of time, it is very likely that her serum proteins were low. Only if she had a normal serum protein of 7 Gm./100 ml. would 10.4 mg. be within the normal range for serum calcium. On the other hand, if the serum proteins were in a concentration of less than 5 Gm./100 ml. of serum, then this calcium level would be within the hyperparathyroid range. If this were chronic nephritis, I should also expect her calcium level to be lower, for under these circumstances the calcium level will ordinarily be within the range of 5 to 8 when the phosphorus is as high as it has been reported in this case. The patient's elevated blood urea nitrogen and creatinine suggest kidney damage. The serum potassium was high—6.3 mEq. The CO_2 was low. Yet, although these findings should be definitive in the making of a diagnosis, they may not help. In the late stages of hyperparathyroidism, after nephrocalcinosis has destroyed much of the renal function, the typical high calcium and low phosphorus are no longer to be found.

The teeth were carious and loose. Such, I suppose, would be the case with scurvy, or the condition could occur independently. But these symp-

toms also could be parts of the hyperparathyroidism syndrome. Since calcium would be taken out of the bones, the lamina dura of the teeth would be absent, and the teeth would be loose. We don't have dental x-rays to verify this possibility.

I have no comment to make about the material in the last paragraph of the protocol, except for the remark that the electrocardiographic findings are characteristic of neither high nor low calcium and of neither high nor low potassium. Dr. January and I think that these findings could possibly be explained by a high serum potassium. One would have to guess that there was high serum potassium, for previously it had been 6.3 mEq., and we are told that additional potassium was given. Why the patient deteriorated in the hospital, I do not know, but it should be remembered that additional calcium can sometimes cause deterioration in hyperparathyroidsm. One of the things that surprised me most about this protocol was that although Dr. Ponseti abstracted it, there apparently were no x-rays. It isn't often that a patient who has been seen on Orthopedics hasn't been x-rayed.

Dr. Ignacio V. Ponseti, Orthopedics: The x-rays were negative.

Dr. Sheets: To sum up, I should say that this woman had hyperparathyroidism, probably of the primary type, with adenoma or generalized hyperplasia of the gland. The possibility of secondary hyperparathyroidism is good, but there is not so much evidence indicating it as there is evidence indicating the primary type.

Dr. Ponseti: I'm sorry that I didn't mention the x-ray findings in the protocol. The films of the thoracic spine showed a very severe dorsal kyphosis, but this kyphosis was unrelated to the defect in the growth of the vertebrae or to the vertebral fractures that are observed in severe osteoporosis, for the vertebral bodies were not wedge-shaped. The kyphosis may have been due to a relaxation of the vertebral ligaments. X-ray films of the other areas were negative.

Student: Were there any x-ray films that showed calcification of the teeth?

Dr. Ponseti: No, I don't think so.

Dr. Raymond G. Bunge, Urology: There was no calcification in the kidney areas, either.

Dr. John R. Carter, Pathology: This was a case of hyperparathyroidism, with secondary nephrocalcinosis due to a parathyroid adenoma. I should like to be the first, but I hope not the last, to emphasize that hyperparathyroidism can be one of the most difficult of diagnoses, particularly in the presence of chronic renal disease. A very careful clinical history, all available laboratory data, particularly the measurements of calcium and phosphorus, the x-ray findings—all of these are essential in the making of a correct diagnosis. One serum calcium determination is insufficient. It is essential that there be several determinations of serum calcium and phosphorus, and of fecal and urinary calcium and phosphorus. Knowledge of the intake and output of calcium and phosphorus may, at times, be absolutely essential to one's arriving at a definitive diagnosis. Probably Dr. Sterns will discuss this aspect later.

The normal weight of a parathyroid gland is 27 mg. In this case the adenoma weighed 2 Gm., and measured 3 x 1 cm. It was composed exclusively of chief cells, and it arose from the left superior parathyroid gland. It was located somewhat ectopically, one centimeter medial to the carotid sheath, and laterally and posteriorly to the left lateral lobe of the thyroid gland. The left inferior parathyroid gland was normal, but despite meticulous search—and I use the word *meticulous* advisedly—I was unable to identify the right pair of parathyroid glands. Those of you who have attempted to find parathyroid glands either at operation or at autopsy will realize how difficult the task can be.

The patient did have rather severe nephrocalcinosis, characterized by tubular damage, interstitial fibrosis and rather large deposits of calcium. You will of course want to know whether or not we were able to determine any indications of previous kidney disease from the pathologic material that we had available. In this particular case, we couldn't be at all sure, since the renal disease was so severe and chronic. It can be said, however, that the number of glomeruli involved in this case was not so great as one ordinarily finds in patients with chronic glomerulonephritis. The changes that were present could be explained adequately on the basis of nephrocalinosis secondary to hyperparathyroidism.

The patient did have metastatic calcification of the subcutaneous tissue of the legs and of the uterus. The calcium deposits were not, however, in the locations that are usual in cases of hyperparathyroidism. For example, the gastrointestinal tract and lungs, as far as we could determine, were free from calcium. There were no cysts discoverable in any part of the skeletal system, either by x-ray or by autopsy examination. There were none of the so-called brown tumors or giant-cell tumors that occasionally are associated with hyperparathyroidism. Obvious osteitis fibrosa cystica—either the generalized or the localized form—was not observed, but there was very definite osteoporosis of all bones. There was hyperplasia of the eosinophilic cells of the pituitary gland, but its significance was debatable. Extracts of the pituitary gland injected into animals have produced hyperplasia of the parathyroid glands in some instances. It is a fact that in a small percentage of hyperparathyroid cases, adenomas are found elsewhere, as for example in the pituitary gland. There also can be adenomas of the islet cells of the pancreas, of the kidneys and of the adrenals, but such adenomas were not present in this case.

The immediate cause of death in this patient was a very severe and extensive bronchopneumonia,

involving the lower lobes of both lungs. In addition, we found an acute hemorrhagic cystitis, generalized arteriosclerosis, extensive cerebral atrophy with old and recent infarction and gliosis, diverticulosis of the colon and extensive myocardial fibrosis involving both the right and left ventricles. The degree of fibrosis was such that it was most surprising that the patient had not exhibited congestive heart failure. Some aortic calcification was also present.

The normal parathyroid gland is composed principally of chief cells and oxyphil cells, and as the individual becomes older, more and more oxyphil cells are observed. In long-standing chronic renal disease, secondary hyperplasia of the parathyroid gland occurs. This type of change differs from that which is observed in an adenoma. Typically, "Wasser Helle" type cells, or so-called clear cells, predominate. These cells are monotonously uniform and involve all portions of the parathyroid gland. At times, however, the true chief-cell adenoma is difficult to distinguish from secondary hyperplasia. Occasionally it is helpful to find large bands of hyalinized collagenous tissue, as well as certain other histologic criteria.

Some of the adenomas of the parathyroid gland, particularly the oxyphil type, are non-functioning. Often these tumors are rather grotesque, histologically, and lobules of neoplastic tissue are separated by delicate strands of collagenous tissue and lymphatic spaces. In the chief-cell adenoma of the present case, one could observe the expanding neoplastic cells with a thin rim of compressed but otherwise normal parathyroid tissue. These tumors grow in an expansile manner and may cause compression atrophy of adjacent normal parathyroid tissue.

Sections of the kidney revealed, as I have said, marked interstitial fibrosis, with deposits of calcium and with scarring and hyalinization of glomeruli. The tubular epithelium was badly damaged, and revealed all types of degenerative and necrotic changes. The arterioles were not significantly abnormal. In this connection, I might mention that this patient had neither hypertension nor any cardiac enlargement. In cases of primary hyperparathyroidism, two other types of change may occur in the kidney. One is a rather extensive chronic pyelonephritis, and the other, to which Dr. Sheets has referred, is so-called parathormone poisoning. In the latter type of lesion, one does not find evidence of chronic renal disease, but does find enormous quantities of calcium which virtually plug all of the tubules so that anuria and death are likely to occur fairly early.

The sections of bone were of great interest. In many areas, particularly in endochondral bone, there were focal areas of dense fibrous tissue, and in other areas there was loose fibrous tissue. Some of this fibrous tissue was being transformed into osteoid tissue, and in a few places thin layers of new or immature primary bone could be seen. Adjacent to this type of bone was a zone of provisional calcification, and then a zone of older bone. In essence, the changes were those of osteitis fibrosa cystica, but they were microscopic in magnitude. In some areas, the lines and zones of calcification were such that a mosaic pattern, somewhat suggestive of Paget's disease, was observed. This type of change would indicate an increased anabolism as well as catabolism of bone. In still other areas, there were foci of bone resorption both by fibrous tissue and by osteoclasts. These bony changes were diffuse and could account for the diffuse osteoportic appearance upon x-ray examination.

Calcification of the subcutaneous tissue of the lower extremities was present. There was an associated chronic inflammatory response, as well as some proliferation of granulation tissue.

Norris,[1] and Black and Ackerman[2] have published two of the better articles on parathyroid adenoma. In the former article, 322 cases extending over a period of 43 years have been reviewed. Several of the following comments are taken from those articles. Unlike thyroid adenomas, parathyroid adenomas cannot be said to have a geographical distribution. They are no more common in one part of the world or in one part of this country than in another. The maximum incidence is in the fifth decade, but adenomas have been known to occur in early childhood, and they can occur in very old age. As regards sex, there is a preponderance of females in a ratio of approximately three to one. Multiple parathyroid adenomas always have been somewhat of an enigma. Of the 322 cases on which Norris reported, 20 were considered multiple adenomas on first examination, but when they were observed later, only 12 were so considered. As a matter of fact, evidence for the existence of multiple adenomas is very meager. The adenomas of the parathyroid gland can occur with about equal frequency on either side of the neck, and they are not uncommonly found in the mediastinum. The concept that most of us have had relative to there being four parathyroid glands located in the usual places is generally true, but there are many exceptions. There have been as many as eight or nine parathyroid glands found in a single individual, and they have been found in almost every possible location in the neck and in the mediastinum. It has been estimated from this large series of Norris's that a patient has a parathyroid adenoma on the average of some seven years before there are clinical manifestations of sufficient severity to bring him to the attention of a physician.

In the majority of instances, either the urinary tract or the skeletal system is involved in primary hyperparathyroidism. It is of interest that the diagnosis of parathyroid adenoma has been made only in approximately two per cent of cases when these

two organ systems have not been involved. Forty-seven cases of malignancy of the parathyroid gland have been reported, but in a recent review of them, only seven have seemed unequivocally to have been invasive carcinomas. One such case which was worked up very extensively at this hospital has been included among the seven cases of the Boyd and Ackerman report.

Dr. William B. Bean, Internal Medicine: Dr. Carter, how do you know that the average patient has had an adenoma for seven years before seeing a doctor?

Dr. Carter: That statement was made in retrospect, and is based upon my recollection of the statistical evidence in the report of 322 cases by Norris, Dr. Bean. At best, it's an estimate. After a careful review of the history of some patients, it was found that the adenomas may have been present for as long as 20 to 25 years. In such cases, it is felt that there is a periodicity with respect to function. In general, it may be said that hyperfunction of the parathyroid adenoma correlates quite well with the size of the tumor until the tumor undergoes degenerative changes, as they frequently do when they have grown to three or four centimeters in diameter.

Dr. Bean: You mean that patients had symptoms for seven years before they got a diagnosis?

Dr. Carter: Yes, that is what is implied.

Student: In this patient, did the purpura overlie the area of calcification?

Dr. Carter: Yes, but not exclusively so. In other words, all of the purpuric lesions that were biopsied did not show calcification. In many of the calcific lesions there was a considerable bed of vascular granulation tissue, with chronic inflammation and with extravasated blood over the areas of calcium deposition.

Dr. Henry E. Hamilton, Internal Medicine: Dr. Carter, was the degree of calcification in the kidney minimal, moderate or severe?

Dr. Carter: I should say that it was moderate-to-severe, Dr. Hamilton. It could explain adequately the severe renal damage, but it was not of the extent that can be observed in so-called parathormone poisioning, where virtually every tubule is plugged with calcium.

Dr. Hamilton: Were pyelograms done on this patient?

Dr. Carter: No, they were not, but x-rays of the kidney area were negative for shadows that might have been interpreted as calcium. The calcium, histologically, was deposited in a finely divided form, not in massive chunks, and I should hardly expect the amount of calcium in this form to have been observed by x-ray.

Dr. Ponseti: I think you will all agree with me that we are indebted to Dr. Sheets for an excellent discussion of the diagnosis in this case. Hyperparathyroidism has been a problem of great interest to biochemists and other scholars for years. The high intake of milk in this patient was perhaps responsible for the absence of bone lesions. It is said that high calcium intake prevents or delays the development of bone lesions in patients with hyperparathyroidism. In Europe, for example, patients with hyperparathyroidism usually have extensive bone lesions because of the comparatively low proportion of milk or other calcium in their diet. In the United States, on the other hand, urinary lesions are usually the first manifestations of the disease. This patient certainly did not have any bone lesions detectable by x-ray, and for the purpose of keeping the record straight I shall make a point of the fact that she was not seen on the orthopedic service. She did, indeed, have enormous amounts of damage to the kidneys. Which came first, the kidney lesion or the hypertrophy of the parathyroid? That is a very difficult question to answer from the history, and often even the blood chemistry helps little. Since Dr. Stearns has done a very great deal of work on this problem, we shall ask her to discuss these points.

Dr. Genevieve Stearns, Orthopedics: It is quite true that the relationship between parathyroid disease and renal disease tends to be reciprocal. The longer either disease lasts, the more marked is the effect that the two disturbances have upon each other.

Primary hyperparathyroidism originally is characterized by massive loss of calcium and phosphorus from bone. It must be excreted by way of the kidney. As long as the kidney can excrete the excess of calcium that is brought to it, serum calcium tends to remain normal, but eventually the capacity of the kidney is exceeded, and serum calcium rises sharply. The kidney also excretes excess phosphate, and phosphate is poorly reabsorbed. Serum phosphorus is always low. The excretion of both calcium and phosphorus in the urine is markedly increased. Because, normally, the urine contains far more phosphate than calcium, the percentage increase in calcium is the more striking. From a normal of 150 mg. daily, an increase in urinary calcium to 600 mg. per day is 400 per cent, whereas an increase in urine phosphorus from 700 to 1200 mg. daily is only 171 per cent. Calcium phosphates are not very soluble, and it takes a large volume of urine to excrete the increased amount. Often the amount of water available is insufficient for the load, the kidney is damaged by the precipitated salts, and nephritis, with nitrogen and phosphate retention, is added to the hyperparathyroidism.

Serum calcium and phosphorus tend to move in opposite directions. Serum calcium rises and phosphorus decreases in hyperparathyroidism. In nephritis, the changes are in the reverse direction. When both occur in the same person, serum calcium and phosphorus tend to keep approximately equal, rising slowly as the diseases progress. In

other words, with a normal serum calcium value of 10 mg., a phosphorus of 9 mg. is an abnormal condition that indicates disturbance both of parathyroids and kidneys, but does not indicate which is primary.

If chronic glomerular nephritis is the original disease, nitrogen and phosphorus retention and a chronic acidosis form the characteristic blood picture. The increased serum phosphorus tends to lower the serum calcium, dropping it to 6 mg./100 ml. or even less. The low serum calcium stimulates the parathyroids to remove calcium (and phosphorus) from bone in order to bring the serum calcium to normal. An increasing retention of phosphate, with a rising serum phosphorus, means increasing stimulation of the parathyroids until there is a condition so very similar to hyperparathyroidism with secondary nephritis that it is difficult for one to decide which was the original disturbance—hyperparathyroidism or nephritis. Persons who originally showed the low calcium, high phosphorus and high urea of chronic nephritis have eventually maintained high calcium as well as high phosphorus values. It is said that the parathyroid glands of all patients dying of nephritis are significantly heavier than normal.

Albright[3] states that the differential diagnosis is best made on the principle that an adenoma of one parathyroid always means that hyperparathyroidism was primary. If all the parathyroids are equally hypertrophic, renal disease was primary. Unfortunately, the differentiation between hypertrophy and adenoma is not usually evident to palpation.

Two of the cases reported in the literature are very similar to the one we are studying today. The first patient reported by Albright as "Secondary renal hyperparathyroidism" was a man of 45 years who had had an illness with edema diagnosed as Bright's disease 22 years earlier. He had been in no particular difficulty until a few months before he came to the hospital. At admission, his blood values were NPN 120, serum calcium 8.2, serum phosphorus 9.8 mg./100 cc., and CO_2 17 mEq./liter—findings very similar to those of our patient: 111, 10.4, 9.4, and 8, respectively. Albright's patient, too, was in his terminal illness. At autopsy, all four parathyroids were hypertrophic, and a diagnosis of hyperparathyroidism secondary to renal disease was made, though the man had lived for 20 years with no apparent illness.

Richards,[4] in England, reported a study of a woman of 44 who, at the age of 22, had been told she had Bright's disease. When she entered the hospital for the purpose of having teeth extracted, she looked so ill that she was referred to the Department of Medicine. Like Albright's patient, she showed evidence of severe kidney damage, with marked metastatic calcification. A week before her death, her NPN was 180, her serum calcium 10.9 and her phosphorus 9.7 mg./100 cc., and her CO_2 was 13.5 mEq./liter. Between her two bouts of nephritis, she too had been in apparent good health for about 20 years. At autopsy, four hypertrophic parathyroids were observed. Urine studies were not carried out for Richards' patient. Both the urine and the fecal calcium of Albright's patient were within normal limits.

Certainly one sees chronic nephritis without marked secondary hyperparathyroidism, and certainly primary hyperparathyroidism is not always accompanied by severe renal damage. If either primary disturbance is relatively mild, so that the patient lives for many years, the occurrence of the secondary disturbance appears inevitable, and if the patient survives long enough, it becomes difficult for one to distinguish which disturbance was primary.

It is obvious that the laboratory findings may be as confusing as the clinical ones in differentiating whether hyperparathyroidism or nephritis is primary in patients like the one presented today. To make the diagnosis, one must carefully examine each detail, as Dr. Sheets has demonstrated. Certainly the more complete the study—including blood, urine and fecal determinations—the more diagnostic assistance we shall have. But until we have had an opportunity to study a larger number of such patients, we must recognize the possibility that either disease may be primary, and differentiation will be difficult.

The possible effect of the "great quantities of milk and brown bread" upon kidneys already in difficulty because of nephritis and hyperparathyroidism is important. Many medical authorities feel that milk, with its high phosphorus content, is contraindicated, and that calcium should be given as a salt containing no phosphate. Calcium lactate or citrate is suitable.

Yet we have seen a patient with primary hyperparathyroidism maintain good calcium and phosphorus retention with a high milk intake. Kidney damage had not occurred, or was very mild. To determine whether good maintenance of nutrition, including that of bone, is overbalanced by the heavier load thrown on phosphorus excretion by the kidney when milk intake is increased, one has to consider many factors, such as appetite and intake of protein other than milk.

Was the high intake of "brown bread" harmful? Whole-wheat bread is rather high in phytic acid, which combines with calcium ions in the gut to form calcium phytate, a highly insoluble salt. A high intake of dark bread may decrease the absorption of calcium from the intestine, thus decreasing re-mineralization of the bones. Dark bread in any large quantity is not, therefore, desirable for these patients.

Dr. Michael Bonfiglio, Orthopedics: One point that ought to be made is that bone biopsy is very helpful in determining whether one is dealing with

hyperparathyroidism at all. The section that Dr. Carter showed us during his discussion of this case indicates pretty clearly a hyperparathyroid change rather than any other hyperparathormone condition, whether osteoporosis or osteomalacia. It doesn't differentiate primary from secondary, however.

SUMMARY OF NECROPSY FINDINGS

The most significant finding was a parathyroid adenoma 3 x 1 cm., weighing 2 Gm., composed exclusively of chief cells and arising from the left superior parathyroid gland. It was located somewhat ectopically, 1 cm. medial to the carotid sheath, and laterally and posteriorly to the left lateral lobe of the thyroid gland. The left inferior parathyroid gland was normal in all respects. Despite meticulous search, we were unable to identify the right pair of parathyroid glands. There was bilateral, extensive and severe chronic renal disease, characterized by nephrocalcinosis, tubular and glomerular damage, interstitial fibrosis, and chronic inflammation. The postmortem BUN was 57 mg. per cent, and the creatinine 4.6 mg. per cent. Extrarenal calcification was present in the uterus, pulmonary artery and subcutaneous fat of the legs, but was not found in the lungs or in the gastrointestinal tract.

Generalized osteoporosis, with foci of fibrosis and evidence of increased anabolism and catabolism of bone, was a conspicuous abnormality, but no bone cysts, osteoclastomata or well-defined areas of osteitis fibrosa cystica were encountered. The pituitary gland revealed a decided increase in eosinophils, a finding commonly seen in hyperparathyroidism. The numerous incidental findings are listed below. The immediate cause of death was an extensive bronchopneumonia involving the lower lobes of both lungs.

NECROPSY DIAGNOSES

Parathyroid adenoma, chief-cell type

Nephrocalcinosis with severe chronic renal damage.

Metastatic calcification of the skin of the leg

Osteoporosis, with increased anabolism and catabolism of bone

Hyperplasia of eosinophilic cells of pituitary gland

Bilateral bronchopneumonia, lower lobes

Acute hemorrhagic cystitis

Generalized arteriosclerosis

Cerebral atrophy, infarction and gliosis

Diverticulosis of colon

Myocardial fibrosis and aortic calcification

Cholecystolithiasis and choledocholithiasis.

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3. Albright, Fuller, and Reifenstein, Edward C., Jr.: The Parathyroid Glands and Metabolic Bone Disease; Selected Studies. Baltimore, Williams & Wilkins Co., 1948.
4. Richards, D. G. B.: Chronic renal disease with secondary hyperparathyroidism. Brit. Med. J., **1**:167-169, (Jan. 27) 1951.

Coming Meetings

In State

Dec. 7	**Oxygen Therapy.** SUI, Iowa City
Dec. 7-8	**Cancer Symposium.** SUI, Iowa City
Jan. 16	**Gastroenterology for GP's.** SUI, Iowa City

Out of State

Dec. 1	**Symposium on Immunology.** Milwaukee Academy of Medicine. Brooks Memorial Union, Marquette University, Milwaukee
Dec. 1-2	**Symposium on Heart Disease.** Monterey County Heart Association, Monterey, California
Dec. 1-15	**Bahamas Medical Conference.** Princess Margaret Hotel, Nassau
Dec. 1-21	**Pain Syndromes: Treatment by Regional Block.** U. of Penna., Philadelphia
Dec. 2-7	**Instructional Courses.** Radiological Society of North America, Palmer House, Chicago
Dec. 3-5	**Diagnosis and Treatment of Poisonings.** New York University, NYC
Dec. 3-5	**Infertility.** New York University. NYC
Dec. 3-7	**Electrocardiography and Other Graphic Methods in Cardiovascular Diagnosis.** University of Penna., Philadelphia
Dec. 3-7	**Advanced Electrocardiography.** Michael Reese Hospital, Chicago
Dec. 3-7	**Electrocardiography.** U. of Texas and Baylor U., Texas Med. Center, Houston
Dec. 3-7	**Gastroenterology.** American College of Physicians, U. of Penna., Philadelphia
Dec. 3-7	**Pediatric Cardiology.** New York University, NYC
Dec. 3-8	**Spatial Vectorcardiography.** Mt. Sinai Hospital NYC
Dec. 3-8	**Ocular Pathology.** Tulane University of Louisiana, New Orleans
Dec. 3-8	**Basic Concepts of Clinical Electrocardiography.** Am. Coll. of Physicians, University of Utah, Salt Lake City
Dec. 3-8	**Diagnosis and Treatment of Trauma.** New York University, NYC
Dec. 3-14	**Serology of Syphilis.** V-D Research Labs., Chamblee, Georgia
Dec. 5-6	**Symposium on Parenteral Fluid Therapy.** Sheraton Hotel, Chicago
Dec. 5-7	**Ophthalmology.** University of California, San Francisco
Dec. 6	**Clinical Pediatrics.** University of Buffalo
Dec. 6-8	**Physical Medicine for Specialists.** U. of Minn. Center for Continuation Study, Minneapolis
Dec. 6-8	**Anesthesiology for G.P.'s.** U. of Minn. Center for Continuation Study, Minneapolis
Dec. 6-8	**Psychiatric Aspects of General Practice.** U. of Nebr. College of Medicine, Omaha
Dec. 7-8	**Review Course in Ophthalmology.** State U. of New York, Syracuse
Dec. 10-12	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Dec. 10-14	**Pathology of Diseases of Laboratory Animals.** Walter Reed Army Medical Center, Washington, D. C.
Dec. 10-21	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Dec. 10-21	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Dec. 12-13	**Minor Surgery and Office Orthopedics.** University of Buffalo
Dec. 13-15	**Pulmonary Diseases.** U. of Nebr. College of Medicine, Omaha

Dec. 14-15	**Safety Practices in the Operating Room.** New York University, NYC
Dec. 15-16	**Symposium on Industrial Medicine.** University of Miami, Coral Gables
Dec. 17-21	**Electrocardiography I.** Tufts Medical School, Boston
Jan. 1-18	**Pain Syndromes; Diagnosis & Treatment by Regional Block.** U. of Pennsylvania, Philadelphia
Jan. 3-4	**Alabama Academy of General Practice Seminar.** Birmingham
Jan. 3-5	**Urology for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis
Jan. 7-9	**Minor Surgery.** Mt. Sinai Hospital, NYC
Jan. 7-9	**Dermatology for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis
Jan. 7-9	**Eighth Postgraduate Course in Medical Technology.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 7-11	**Physical and Occupational Therapy for Postpolios.** Warm Springs, Georgia
Jan. 7-11	**Etiology, Diagnosis & Treatment of Heart Diseases.** NYU, NYC
Jan. 7-11	**Anatomy for Orthopedists.** NYU, NYC
Jan. 7-18	**Introduction to Radiologic Safety,** NYU, NYC
Jan. 7-18	**Laryngology & Surgery of the Neck.** NYU, NYC
Jan. 7-18	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 7-18	**Radiologic Safety for Industrial and Public Health Physicians.** NYU, NYC
Jan. 7-Feb. 1	**Basic Course in Radioisotopes.** Oak Ridge, Tennessee
Jan. 10-12	**Seminar in Clinical Medicine.** Albany Medical College, Albany
Jan. 10-12	**Fluid and Electrolyte Balance.** Tufts University, Boston
Jan. 14-15	**Pulmonary Diseases.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 14-18	**Neuro-ophthalmology.** NYU, NYC
Jan. 14-18	**Postgraduate Course, American College of Chest Physicians.** Vanderbilt University, Nashville
Jan. 14-18	**Elementary Electrocardiography.** Mt. Sinai Hospital, NYC
Jan. 14-18	**Advanced Electrocardiography.** Mt. Sinai Hospital, NYC
Jan. 14-18	**Seminar in Dermatology & Syphilology for Non-dermatologists.** NYU, NYC
Jan. 14-18	**Diagnosis and Treatment of Peripheral Nerve Injuries.** NYU, NYC
Jan. 14-18	**Refresher Course in Basic Urology.** NYU, NYC
Jan. 14-19	**Diseases of Parasympathetics and Sympathetics.** NYU, NYC
Jan. 14-19	**General Practice Review.** U. of Colorado Medical Center, Denver
Jan. 14-25	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
Jan. 14-25	**Pediatrics Refresher Course.** NYU, NYC
Jan. 16-17	**Endocrine Disease.** University of Buffalo, Buffalo
Jan. 16-17	**Gastroenterology.** Kansas U. Medical Center, Kansas City, Kansas
Jan. 16-18	**Sectional Meeting, American College of Surgeons.** San Juan, Puerto Rico
Jan. 17-19	**Obstetrics & Gynecology.** U. of Nebraska College of Medicine, Omaha
Jan. 21-22	**Use of Isotopes in Medicine.** City of Hope, Duarte, California
Jan. 21-22	**Pulmonary Function.** U. of Indiana, Indianapolis
Jan. 21-23	**Pediatrics.** U. of Michigan, Ann Arbor
Jan. 21-24	**Surgery.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 21-25	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 21-Feb. 1	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 21-Feb. 2	**Cancer Therapy.** NYU, NYC
Jan. 24-26	**Obstetrics.** U. of Michigan, Ann Arbor
Jan. 28-Feb. 8	**Medicine.** Mt. Sinai Hospital, NYC
Jan. 28-Feb. 8	**Endaural Surgery.** NYU, NYC
Jan. 28-Feb. 8	**Occupational Radiation Problems.** Taft Sanitary Engineering Center, Cincinnati
Jan. 28-Feb. 8	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Jan. 28-Feb. 9	**Diagnosis & Treatment of Fractures & Dislocations.** NYU, NYC
Jan. 30-Feb. 1	**Postgraduate Course, American Diabetes Association.** Ohio State University College of Medicine, Columbus
Jan. 31-Feb. 2	**Emergency Surgery for General Practitioners.** U. of Minnesota Center for Continuation Study, Minneapolis

TECHNOLOGISTS' SHORT COURSE

The Eighth Annual Postgraduate Course in Medical Technology will be offered at the University of Kansas Medical Center, in Kansas City, Kansas, on January 7, 8 and 9, 1957. The faculty is to include L. W. Diggs, M.D., professor of medicine and director of medical laboratories at the University of Tennessee; Myron N. Jorgensen, Ph.D., associate professor of biochemistry at the University of Kansas; Samuel Natelson, Ph.D., chairman of the Department of Biochemistry at the Rockford, Illinois, Memorial Hospital; Alexander S. Wiener, M.D., assistant professor of forensic medicine at the NYU Postgraduate School of Medicine; and Harold Wood, M.D., associate professor of pathology at Baylor University.

The program will include immunohematology in microbiology, laboratory tests and interpretations in hematologic disorders, and new developments in other biochemical procedures. There will be workshops on hematocrit determination, coagulation of blood, blook bank procedures, calibration and use of spectrophotometers and colorimeters, flame photometry, electrocardiography, endocrine determinations, rheumatograms, parasitology and virus identification. The enrollment fee is $12.

PSYCHIATRIC ASPECTS OF GENERAL PRACTICE

The University of Nebraska College of Medicine will conduct a 2½-day seminar on "Psychiatric Aspects of General Practice" on December 6-8 at the Nebraska Psychiatric Institute, in Omaha. The fee is to be $10 per day or $5 per half-day.

The 20 or more doctors of medicine who are to constitute the faculty are teachers of neurology and psychiatry at the University of Nebraska and/or clinical directors of Nebraska state mental hospitals. Their topics will include "Depressive Reactions in General Practice," "Biochemistry of Tranquilizing Drugs," "Diagnostic Criteria for Psychiatric Disturbances," "General Medical and Other-Specialty Diseases With Initial or Predominant Manifestations as Neurologic and Psychiatric Syndromes," "Family Counseling," "Temporal Lobe Epilepsy," "Legal Aspects of Psychiatry," "Methods, Procedures and Problems of Referral," "Diagnosis and Treatment of Convulsive Disorders," and "Present Status of Physical Therapy."



THE LONG CONTROVERSY HAS ENDED

Elsewhere in this issue of the JOURNAL, our readers will find the complete text of the Joint Declaration on the proper relationship between pathologists and and radiologists and the hospitals in which they practice that was formulated last month by representative Iowa hospital trustees and representative Iowa physicians. It has now been ratified both by the Iowa Hospital Association and by the Board of Trustees of the Iowa State Medical Society.

Thus, it seems, the long dispute finally has come to a close. Physicians have reason to be happy about the solution, not only because the Joint Declaration ends an expensive and fantastically time-consuming altercation, only one part of which was the longest court trial in the history of Polk County, but also because radiologists, pathologists and the other physicians have secured everything that they have wanted.

Dr. Wendell L. Downing, of Le Mars, president of the Society, Dr. George H. Scanlon, of Iowa City, chairman of the Board of Trustees, and Mr. Robert B. Throckmorton, attorney for the Society, are deserving of the thanks not only of our own membership but of the rest of the profession throughout the country, as well. Saying that someone has "done a wonderful job" has become somewhat hackneyed in recent years. But these men really deserve that it should be said of the work they have done.

Pathology and radiology have been acknowledged to be the practice of medicine. The principle, long advocated by the State Medical Society, that negotiations between doctors and hospitals should be conducted at the local level, between individual hospitals and the members of their radiology and pathology staffs, has been agreed to. It has now been established that physicians are in no sense to be the employees of hospitals or under the direction of laymen, but are to be in complete charge of the facilities and the technologists with whom they work. And it has been agreed that benefits for medical services which have been provided under Blue Cross contracts are now to be provided by Blue Shield, without loss even to those policyholders who have bought Blue Cross but not Blue Shield coverage. The pathologists and radiologists have guaranteed that no increase in the costs of their services will result from the change in billing procedures.

It is not presently the impression of the officers of the Iowa State Medical Society or of the Society's attorneys that there is any point in the Joint Declaration that is in conflict with the Code of Iowa. If it subsequently appears that there is a need for a change in the law in order that the agreement may become operable in any of its particulars, the Society has agreed to join the Iowa Hospital Association in asking the state legislature to change the law so as to permit that part of the Joint Declaration to stand, along with the other provisions. The officers and Board of Trustees of the Society have acted altogether in good faith. They have every reason for thinking that this marks the end of the matter.

"MEDICARE"

"Medicare," the nationwide program designed to implement Public Law 569 enabling the spouses and children of military personnel to secure care from civilian doctors in civilian hospitals, will go into effect on December 8, 1956.

On going to see the doctor of her choice, the dependent will present identification bearing a government seal, a note entitling her to civilian care and the date when her eligibility ends. After making certain that the identification is in order, the physician will handle her like any other private case. On the completion of treatment, he will bill the Iowa State Medical Society on a government form, certifying to the work that he has done and certifying that the fee charged is the same that he has been charging for similar care administered to his private patients. The I.S.M.S. will pay the doctor directly.

"Medicare" is but a small part in a program being conducted by the Department of Defense "to improve career incentive"—i.e., to stop the turnover of nearly one-third of military personnel each year. Because 40 per cent of the two million dependents do not have ready access to military facilities, "Medicare" will arrange for care in civilian facilities. "Medicare" rules and regulations have been written largely by medical men, and they will be administered in Iowa by our own Iowa State Medical Society. Nationally, the implementation has been worked out by the government and the AMA; regionally, by the government and the North Central Medical Conference; and at the state level, by the government and the Iowa State Medical Society.

The program agreed upon by the State Medical Society and the federal government will be a full-service plan based upon a schedule of fair and reasonable, and prevailing fees charged in the community. The Fee Committee of the State Society, in arriving at the schedule presented to the government, has based its final figures upon the principle "Our Committee is interested, not in

what the fee *ought* to be, but rather in what the fee *is.*" The fee designated in the schedule is the maximum that may be charged, but the fee paid will not always be the maximum, for the fair, reasonable and prevailing fee of the local community may not be so high as that maximum.

The headquarters office of the Iowa State Medical Society will arrange for participation of local physicians, and will keep an index file on all participants. A physician has the right to decline to participate under the program, or to refuse any individual case without stating a reason.

The headquarters office will receive, process and pay all bills for services rendered by physicians furnishing services. The original claim forms submitted by the physicians will be retained by the Society. The claim reports to the government will be in the form of tabulations of claims, setting forth the pertinent accounting and statistical information. In so far as is possible, the privileged status of communications from patient to physician will thus be preserved.

To mediate misunderstandings, and to review and consider all cases involving complaints, unusual circumstances, differences of professional opinion, etc., a medical board will be set up. The government has indicated that it has no intention of dealing with individual doctors, but will work through the State Medical Society's office.

The headquarters office will also have to submit monthly consolidated invoices covering all services rendered. It will also have to help compile statistics and other cost information that the Department of Defense will need for its annual report to Congress upon "Medicare."

"Medicare" differs in many important ways from the usual prepayment insurance plans. It is a cost-reimbursement arrangement, whereby the government will pay the cost of the medical care, plus actual administrative costs. In general, it covers only hospital-inpatient care. However, payments will be authorized for the treatment of bodily injuries, fractures, dislocations, lacerations and other wounds as prescribed in the local schedule of allowances, regardless of whether or not the patient has been hospitalized.

Although "Medicare" does not cover "medical care normally considered to be outpatient care," there are a limited number of exceptions. Tests and procedures, if they are provided for in the local fee schedule, could include x-rays, laboratory or other pathologic examinations required for diagnosis and treatment of bodily injury prior to hospitalization, or needed in diagnosis preliminary to a surgical procedure. But the benefits are not to exceed $75 for such work before the patient is hospitalized, or $50 after his or her release from the hospital.

Hospital care (up to 365 days) will include treatment for any acute medical or surgical condition, including "acute complications of chronic diseases"; treatment of contagious diseases; and diagnostic tests and procedures, including necessary laboratory work.

Obstetric services both in and out of the hospital will include pre- and postnatal care and delivery, and also whatever laboratory and x-ray procedures and tests are necessary for the proper conduct of the case. Full care for the newborn while in the hospital is provided, as is limited care (two calls) during the 60 days immediately thereafter.

ENZYME STUDIES IN MYOCARDIAL INFARCTION

Study of the natural history of acute pancreatitis has been greatly facilitated by measurement of the enzymes (amylase and diastrase) peculiar to the pancreas that appear in the blood and urine following acute insults to that organ. Similarly, the course of patients with cancer of the prostate may be followed if one makes determinations of serum acid phosphatase, an enzyme produced by prostatic epithelium and released into the blood stream as those cells undergo necrosis. Alkaline phosphatase in the serum rises with biliary obstruction and with proliferative changes in bones. The clinician thus is given definite laboratory help in determining changes in the pancreas, in the prostate, in the skeleton and, sometimes, in the liver.

Cardiac and skeletal muscles, the parenchymal cells of the liver and kidney and perhaps the brain are particularly rich in an enzyme which is concerned with attaching an amino group to oxaloacetic acid to form glutamic acid. This enzyme was originally named "SGO-T," but it is now known more familiarly as "transaminase."[1] Determinations of serum levels of this enzyme are now performed in many laboratories. Subsequently, other enzymes (malic and lactic dehydrogenases) have been found to be similarly localized, and the tests for these substances are less difficult than the test for transaminase.[2] Following necrosis of heart, voluntary muscle, liver or kidney, these enzymes are released into the blood in easily measurable amounts. Clinical findings will usually differentiate which organ is involved.

The importance of transaminase or dehydrogenase determination lies in the solution of the all-too-frequent clinical dilemma of whether an episode of chest pain is due to myocardial infarction or to coronary insufficiency without infarction, pulmonary embolism, dissecting aneurysm, acute pericarditis or even more remote non-cardiac disease. The findings on physical examination, routine laboratory studies or electrocardiograms

1. LaDue, J. S., Wroblewski, F., and Karmen, A.: Serum glutamic oxaloacetic transaminase activity in human acute transmural myocardial infarction. Science, **120**:497-499, (Sept. 24) 1954.

2. Wacker, W. E. C., Ulmer, D. D., and Vallee, B. L.: Metalloenzymes and myocardial infarction II. Malic and lactic dehydrogenase activities and zinc concentrations in serum. New England J. Med., **255**:450-456, (Sept. 6) 1956.

ACROBATICS



ACHROMYCIN*

Hydrochloride
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in the treatment of

genitourinary infections

UROLOGISTS report the decided advantages of oral efficacy, minimal side effects, and wide range antibacterial activity offered by ACHROMYCIN in the treatment of urinary tract infections.

Finland's[1] group of patients with acute infections of the urinary tract (principally *E. coli)* demonstrated excellent response, both clinical and bacteriological, following administration of tetracycline.

Prigot and Marmell[2] reported 49 out of 50 patients with gonorrhea showed a negative smear and culture on the first post-treatment visit. Purulent discharge disappeared in these patients within 24 hours after a usual 1.5 Gm. dose of tetracycline.

Trafton and Lind[3] found tetracycline (ACHROMYCIN) an effective antibiotic for treating many urinary tract infections caused by both Gram-negative and Gram-positive organisms.

English, *et al.*[4] noted that a daily dose of 1 to 1.5 Gm. of tetracycline resulted in urinary levels as high as 1 mg. per milliliter.

To suit the needs of your practice and to further the patient's comfort ACHROMYCIN is offered in a complete line of 21 dosage forms.

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PEARL RIVER, NEW YORK

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*REG. U. S. PAT. OFF.

References:
1. Finland, M., *et al.: J.A.M.A.* 154:561 (Feb. 13) 1954.
2. Prigot, A. and Marmell, M. *Antibiotics and Chemotherapy* 4:1117 (Oct.) 1954.
3. Trafton, H. and Lind, H.: *idem* 4:697 (June) 1954.
4. English, A., *et al.: idem* 4:441 (April) 1954.

may at times be ambiguous, but only in the case of true infarction will serum transaminase or dehydrogenase levels be significantly elevated. As the necrotic process subsidies, serum enzyme concentrations will return to normal.

Enzyme studies are helpful in some instances of liver disease. Other currently used tests of liver function will answer questions regarding the functional capacity of liver cells, or concerning the integrity of the bile synthesis and excretion system, but they will not give an indication, except indirectly, of the amount of liver that has actually been destroyed by the disease. Transaminase and dehydrogenase levels in the blood are roughly proportional to the amount of necrotic tissue, and may give the best indication of the true diagnosis.

With the development of tests for these enzymes, the organic status of the heart can now be studied biochemically.

FEDERAL HEALTH BUDGET, 1957

For the fourth time, we are presenting herewith the highlights of the annual report of the AMA Washington Office on projected federal spending in the health-services field. Each of the previous times, there was a considerable over-all increase, and since adequate publicity has been given to the largesse of the 84th Congress in the field of medical research, it should surprise no one that the figures for 1957 are higher than ever.

The AMA Washington Office has made the following six interesting observations upon the 1957 budget (for the fiscal year July 1, 1956—June 30, 1957):

1. What the U.S. government is spending in health fields alone represents an average of $15.17 for every man, woman and child in the country. Incidentally, that is $1.78 more than last year.

2. If only wage-earners are considered, one finds that the federal government is spending $38.72 each to finance health-medical projects. That is $4.40 more than last year.

3. The federal health-service expenditure per average family group this fiscal year will be $54.61.

4. Even in an over-all federal budget of $61,200,000,000, the total health bill is by no means insignificant. It is a billion dollars more than the cost of running the Commerce Department, half a billion more than all Agriculture Department expenses and six times the Interior Department's budget.

5. *Principally because of spectacular increases for research, health programs of the Department of Health, Education and Welfare this year will cost half again as much as they did last year.*

6. *For the first time since World War II, medical costs of the Veterans Administration top the list, passing the Defense Department. The Department of Health, Education and Welfare is a close third.*

	1957	1956
Veterans Administration		
Inpatient Care in VA Hospitals	$ 619,614,000	$ 615,869,000
Outpatient Care	82,638,000	85,471,200
Modernization and Replacement Construction	51,635,000	30,000,000
Domiciliary Care	29,319,000	23,062,500
Contract Hospitalization	13,967,000	15,237,300
Medical Administration	7,300,000	7,422,000
Medical Research	10,990,300	6,381,600
Major Alterations, Improvements and Repairs	4,533,000	3,900,000
Supply Depot Operations	1,628,000	1,642,200
Medical Education and Training	1,400,000	1,200,000
Medical Care, Philippine Veterans	2,000,000	(not reported)
TOTALS	$ 825,024,300	$ 790,185,800
Department of Defense		
Army Medical Services	$ 290,000,000	$ 300,000,000
Air Force Medical Services	223,000,000	286,000,000
Naval Medical Services	277,000,000	232,000,000
Office, Asst. Sec. of Defense (Health & Medical)	105,000	104,500
TOTALS	$ 790,105,000	$ 818,104,500
Department of Health, Education and Welfare		
Division of Hospital Facilities		
Hill-Burton Original Program	$ 102,800,000	$ 88,800,000
Medical Facilities, Category Program	21,000,000	21,000,000
Hill-Burton Administrative Expenses	1,381,000	1,250 000
Research	1,200,000	1,200,000
National Institutes of Health		
National Cancer Institute	$ 48,432,000	$ 24,828,000
National Heart Institute	33,396,000	18,778,000
Mental Health Institute	35,197,000	18,001,000
Arthritis & Metabolic Diseases Institute	15,885,000	10,740,000
Neurological Diseases & Blindness Institute	18,650,000	9,861,000
Allergy & Infectious Diseases Institute	13,299,000	7,580 000
Dental Health Institute	6,026,000	2,136,000
General Funds	12,122,000	5,899 000
Planning and Construction	33,501,000	(new category)
Indian Health Activities	48,075,300	38,840,000
Hospitals & Medical Care	40,969,700	34,326 000
Poliomyelitis Vaccine Program	23,600,000	30,000 000
Assistance to States—General	17,591,000	18,160,000
Tuberculosis Control	6,660,000	6,000 000
Communicable Disease Control	5,750,000	5,250,000
Sanitary Engineering Activities	9,000,000	4,690,000
Venereal Disease Control	4,195,000	3,500,000
Foreign Quarantine Service	3,315,000	3,000 000
Office of the Surgeon General	3,892,000	2,762,000
Water Pollution Control	50,000,000	(new category)
National Library of Medicine	1,376,000	(new category)
Alaska, Disease & Sanitation Investigations & Control	1,185,000	1,125,000
Alaska Mental Health Program	25,000	(new category)
Reimbursable Health Program for Other Agencies	321,800	321,800
Social Security Administration		
Bureau of Public Assistance (medical payments)	100,000,000	90,000,000
Disability Freeze Program	9,000,000	(new category)
Permanent and Total Disability Payments	11,000,000	(new category)
Children's Bureau	41,183,000	35,796,600
Food and Drug Administration	7,979,000	6,266,000
Office of Vocational Rehabilitation	42,110,000	36,825,000
U. S. Office of Education (Practical Nurse Education)	2,545,000	(not reported)
TOTALS	$ 772,661,800	$ 526,935,400
Federal Civil Defense Administration	$ 49,810,000	$ 30,450,000
Atomic Energy Commission	31,525,000	27,700,000
International Cooperation Administration		
Technical Cooperation Programs	16,380,000	20,141,000
Development Assistance Programs	12,930,000	5,300,000
TOTALS	$ 29,310,000	$ 25,441,000

Department of State		
United Nations Children's Fund	$ 9,700,000	$ 9,000,000
World Health Organization	3,410,000	3,349,790
Pan American Sanitary Bureau	1,386,000	1,320,000
Foreign Service Employees' Medical Care	1,000,000	(new category)
TOTALS	$ 15,496,000	$ 13,669,790
Federal Employees' Health Program	$ 10,000,000	$ 6,000,000
National Science Foundation	8,000,000	5,000,000
Department of Labor		
Bureau of Employees' Compensation	6,600,000	6,800,000
Bureau of Labor Standards	551,126	536,000
TOTALS	$ 7,151,126	$ 7,336,000
Department of Interior		
Bureau of Mines	$ 5,304,300	$ 5,000,000
Office of Territories	833,905	770,000
TOTALS	$ 6,138,205	$ 5,770,000
Panama Canal Zone	$ 6,055,300	$ 5,702,900
Department of Treasury	3,511,700	2,990,000
Department of Justice	1,580,000	1,470,000
Federal Trade Commission	1,000,000	1,000,000
Department of Commerce		
Civil Aeronautics Administration	419,414	223,486
Bureau of Standards	128,500	54,100
TOTALS	$ 547,914	$ 277,586
Civil Service Commission	$ 386,000	$ 382,600
National Advisory Committee to Selective Service	180,000	180,000
President's Committee for Employment of Phys. Handicapped	134,678	130,000
Health Resources Advisory Committee	90,000	101,000
Office of the Attending Physician of Congress	12,145	
GRAND TOTALS	$2,558,719,168	$2,268,826,576

Attention, Doctors:

Our medical schools need our help. Tuition pays only 19.2 per cent of the cost of educating a student. Other funds must come from other sources. Only doctors fully realize the costs of operating our medical schools.

The doctor must lead the way if adequate support is to come from other sources. Why not write your check today? You may earmark your contribution for the medical school of your choice.

Make your check payable to The American Medical Education Foundation, and mail it to the AMA, 535 North Dearborn Street, Chicago 10, Illinois.

The College of Medicine at the State University of Iowa has received a total of $143,-329 from the Foundation during the years 1951 through 1955. Of that sum, Iowa physicians contributed $43,227.70.

Since donations to the Foundation are deductible from taxable income, let's all get behind this most worthy cause.

T. F. Thornton, M.D.
A.M.E.F. Chairman

POSTPONING THE DOWNFALL OF SOCIAL SECURITY

Doctors of medicine made no secret of their opposition to H.F.7225, and many groups that we like to think represent similar responsible and far-sighted segments of the American citizenry agreed with them. But the bill was made into law, nonetheless.

No one protested very strenuously at the expansion of the Social Security system to include some 200,000 professional men and women who hadn't previously been covered, for the majority of them wished to be included. But the lowering, from 65 to 62, of the age at which women can be eligible for Social Security benefits, and the granting of benefits to the completely disabled at age 50 involved the establishment of dangerous precedents.

On the last of those points, the editors of the NEW YORK HERALD TRIBUNE had the following to say, on July 3, 1956: ". . . Some are sure to ask [whether] it is fair to give a 50-year-old a pension while denying it to a disabled person of 49 —or 39. Disability, they will argue, and with reason, is absoulte, and an age qualification is irrelevant. And if the disabled receive pensions, what about their widows and children? It will be hard indeed for Congress, in another election year, not to extend these benefits further."

President Eisenhower has promised that the government will try to administer the disability provision as efficiently and effectively as possible. And he has also promised to place more emphasis upon rehabilitation programs. There, presumably, is the place where effort will be most rewarding. Thousands of handicapped people will be unwilling to remain "permanently disabled" if they are given opportunities to restore themselves to wage-earner status, just as there were millions of able-bodied people who searched tirelessly during the Depression for jobs that would make them self-suporting once more.

We are encouraged to learn that many women, on finding that under the new law they are entitled to less money per month beginning at age 62 than they will be if they work until age 65, are changing their minds about retiring early. It is not, we reiterate, that we take a fiendish pleasure in seeing them go back to their jobs. Nor, on the other hand, do we subscribe to the theory that continued gainful labor is essential to their longevity. Rather, our interest is in postponing the time when the Social Security system seems destined to go broke. The vast majority of Americans are coming to rely upon their Social Security credits to keep the wolf from the door in their old age, and we dread the day when the overliberalization of benefits—legislated by politicians who, we are convinced, are the truly selfish individuals—will have burdened taxpayers with retirement-insurance deficits far beyond their ability to carry.

Joint Declaration Regarding the Proper Relationship Between Pathologists and Radiologists and the Hospitals in Which They Practice

Formulated by Representatives of Iowa Hospital Trustees and Iowa Physicians, and Endorsed by the Iowa Hospital Association and the Iowa State Medical Society.

1. The ownership and maintenance of the laboratory and x-ray facilities and the operation of same under this joint declaration is a proper function of a hospital.

2. Pathology and radiology services performed in hospitals are the product of the joint contribution of hospitals, doctors, and technicians but these services constitute medical services which must be performed by or under the direction and supervision of a doctor, and no hospital shall have the right, directly or indirectly, to direct, control or interfere with the professional medical acts and duties of the doctor in charge of the pathology or radiology facilities or of the technicians under his supervision.

3. Each hospital should arrange for such services and for the direction and supervision of its pathology or radiology department by entering into either an oral or written agreement with a doctor who is a member of or acceptable to the hospital medical staff. Such doctor may or may not be a specialist. The laboratory may be supervised and directed by a qualified member of the staff and specific services may be referred to a specialist, or the specialist may also direct and supervise the laboratory as may be desired. Any contract so entered into shall be in accordance with the principles stated herein.

4. Technicians and other personnel (not including doctors) in pathology or radiology departments, shall (unless the department is leased) be employees of the hospital, subject to the rules and regulations of the hospital applicable to employees generally, but under the direction and supervision of the doctor in charge of the Department as set forth elsewhere in this Declaration.

5. The doctors and hospitals shall mutually agree upon the employment of any technicians necessary for the proper operation of said Department and no technicians shall be dismissed from said employment without the mutual consent of the parties provided, however, that in the event the hospital and doctor are unable to mutually agree upon the hiring or discharge or disciplining of any employee of said Departments, the matter shall be promptly submitted to the Joint Conference Committee.

6. The contract between the hospital and doctor in charge of the laboratory or x-ray facilities may contain any provision for compensation of each upon which they mutually agree, provided, however, that no contract shall be entered into which in any way creates the relationship of employer and employee between the hospital and the doctor, and a percentage arrangement is not and shall not be construed to be unprofessional conduct on the part of the physician or in violation of the statutes of the State of Iowa upon the part of the hospitals.

7. The hospital admission agreement signed by the patient or his legal representative shall contain the following statement:

"Pathology and radiology services are medical services performed or supervised by physicians, and the personnel and facilities are furnished by the hospital for said services. Charges for such services are collected, however, by the hospital on behalf of said doctors pursuant to an agreement between said physicians and the hospital, and from said charges I consent that an agreed sum will be retained by the hospital in accordance with an existing agreement between the doctor and the hospital."

8. The hospital bill shall properly include the charges for pathology and radiology services as long as the name of the doctor is stated and it fairly appears that the charge is for medical services.

The said hospital bill shall also contain a statement substantially in the following form:

"The pathology and radiology charges are for medical services rendered by or under the direction of the doctor listed above and are collected by the hospital on behalf of the doctor, from which charges an agreed sum will be retained by the hospital in accordance with an existing agreement to which retention you consented at the time of your admission to the hospital."

9. All fees to be charged by the physicians for pathology and radiology services shall be mutually agreed upon by the hospital and the doctor. In the event dispute shall arise between the parties the matter shall be submitted for judgment to the Joint Conference Committee.

10. Fees for radiology and pathology services must be paid for as medical and not hospital services. In all cases this requires payment by "Blue

Shield" (Iowa Medical Service) and not by "Blue Cross" (Hospital Service of Iowa).

11. Nothing in these principles is intended or should affect in any way that obligation of public hospitals under Chapter 347 or 380 of the Code of Iowa (1954), as well as the State Hospital at Iowa City, to provide medical treatment for indigent persons or tuberculosis patients as provided in Chapter 254 and Chapter 255 of the Code wherein medical treatment is to be provided by hospitals of that category to patients of certain entitlement, nor to the operation by the State of mental or other hospitals authorized by law.

12. Whenever used herein the term:

a. "Hospital" shall include all hospitals licensed under Chapter 135B of the Code of Iowa (1954);

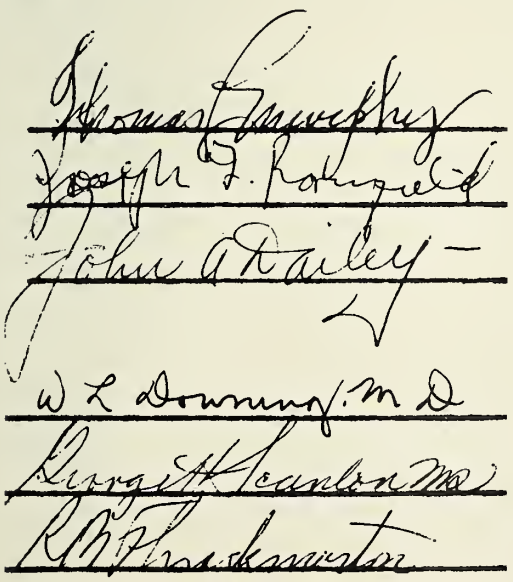
b. "Doctor" shall mean any person licensed to practice medicine and surgery under the provisions of Chapters 147 and 148 of the Code of Iowa (1954);

c. "Technician" shall mean either technician or technologists.

d. "Joint Conference Committee" shall mean the "Joint Conference Committee" as required by the Joint Commission on Accreditation of Hospitals.

13. This Joint Declaration shall be submitted to the Iowa State Medical Society and to the Iowa Hospital Association for approval on November 15, 1956, and it is recommended that this Joint Declaration be implemented by both organizations in a spirit of co-operation as to the pending Supreme Court appeal and in all other respects and that joint action by legislation be undertaken to legalize the principles herein stated wherever necessary.

AGREED to and signed this 8th day of November, 1956.



FIRST AMENDMENT TO JOINT DECLARATION

The Joint Declaration of November 8, 1956, entered into by and between THOMAS B. MURPHY, JOSEPH F. ROSENFIELD, JOHN A. DAILEY, W. L. DOWNING, M.D., GEORGE H. SCANLON, M.D., and R. B. THROCKMORTON is hereby amended as follows in order better to express the intent of the parties in executing said Joint Declaration:

1. The parenthetical statement "unless the department is leased" now contained in Paragraph 4 is hereby amended to read as follows:

"(unless the department is leased or unless the hospital and doctor mutually agree otherwise)."

2. There shall be added to the definition set forth in Paragraph 12 the following new subparagraph:

"e. 'Employees' as used the first time it appears in Paragraph 4 hereof, and 'employment' as used in Paragraph 5 hereof, shall include and pertain to members of the religious order operating the hospital even though the relationship of employer and employee does not exist between such members and the hospital."

This First Amendment is hereby executed by the undersigned, JOSEPH F. ROSENFIELD, for himself and on behalf of and with the express authorization of THOMAS F. MURPHY and JOHN A. DAILEY.

This First Amendment is hereby executed by the undersigned, R. B. THROCKMORTON, for himself and on behalf of and with the express authorization of W. L. DOWNING, M.D., and GEORGE H. SCANLON, M.D.

Signed this 12th day of November, 1956.

s/ Joseph F. Rosenfield
s/ R. B. Throckmorton

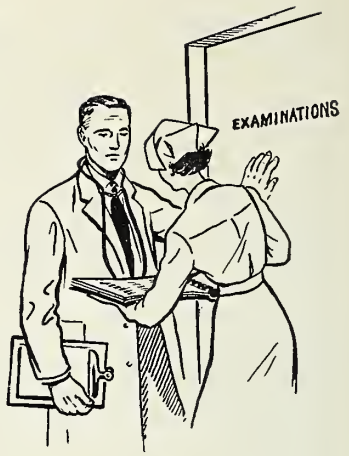
TRUDEAU SOCIETY RESEARCH GRANTS

Applications are being accepted until February 1, 1957, by the Iowa Trudeau Society for research grants in the areas of tuberculosis, respiratory physiology and associated fields.

County tuberculosis associations in Iowa are providing Christmas Seal funds on a voluntary basis again this year, through the Iowa Tuberculosis and Health Association, for research projects in Iowa.

Physicians interested in making application are asked to address Wm. K. Hamilton, M.D., chairman of the Medical Research Committee, c/o SUI Department of Surgery, Iowa City. The other members of that Committee are Dr. D. F. Crowley, Jr., of Des Moines, Dr. Lewis J. Dimsdale, of Sioux City, and Drs. W. M. Kirkendall and Arthur C. Wise, both of Iowa City.

THE DOCTOR'S BUSINESS



Planning a Partnership Office—II

MILLARD K. MILLS
WATERLOO

Frequently, when two or more doctors are practicing together, there is even more need for their having auxiliary rooms than there is when they practice separately. The reason, of course, is that there are usually twice or more times as many patients.

Regarding plans for laboratory and x-ray rooms, partners and solo practitioners must ask themselves the same questions. How much laboratory work will be done? Are drugs to be dispensed? How much x-ray work will the office handle? How much and what size of equipment must be housed? The sizes of the rooms depend upon the answer to these questions. The apparatus must be located, if possible, in an area equally convenient to all of the doctors. As previously mentioned, these rooms are usually put at the rear of the building if the doctors' work areas are across the hall from each other. If not, they should be located somewhere between the doctors' work areas.

A recovery room containing a cot and a chair or two, plus the diathermy and electrocardiograph equipment, is usually quite essential. The nurse can also give shots in this room.

The emergency room, too, has increased significance in a larger office. Sometimes doctors like to have two lavatories if the volume of their work seems to warrant it. In a three- or four-man office, this duplication would seem desirable, but we question the need in the average two-man office.

OTHER SPECIAL NEEDS

If minor surgery is to be done at the office, a special room is required. Such a room should be at least 10′ x 14′ or larger, depending of course on the type and amount of surgery handled. This room should be directly accessible from the outside of the suite—i.e., it ought not to be necessary for stretcher cases to be brought in through the waiting room. Further, attention should be given to the width of the door and of the hall through which the stretcher may have to be carried.

In larger groups, it is sometimes practical to have a separate injection room where nurses may assist those patients who do not need to see the doctor at each visit. This room may be small—6′ x 8′ is quite adequate in most cases.

If your group employs four or more girls, your allocating a small space for their use will do a great deal toward promoting good relations between the staff and the doctors. It means a lot to them to have a room 8′ x 8′ or so, with a cot, a few chairs and possibly a place to make coffee. In addition, there should, of course, be a closet and a place for their personal items. Surveys have shown the beneficial results of "coffee breaks," and by providing your employees with facilities for relaxation on the premises, you can secure those benefits with a minimum loss of the time you pay them for. Certainly you must have an understanding with your assistants as to the use of their room and the length of their breaks, but if they are loyal and conscientious people, they will appreciate their privileges, rather than abuse them.

When there are several doctors in a group, it is often desirable that there be a central room for their personal use. It is frequently referred to as "the library." When there is to be such a room, individual consultation offices can be reduced in size. Doctors can use this room for consultations with each other, for study and for relaxation. It is also an ideal place for the group meetings that are so vital to the success of a partnership.

In constructing a building for a partnership, it is imperative that one consider the likelihood of expansion. Very often, as the volume increases, the two-man partnership grows to include four or more doctors. If you feel that future expansion of your group is a possibility, be sure that your lot and building will permit it!

Iowa Academy of General Practice

IAGP POSTGRADUATE CONFERENCE AT SUI

Now is the time to mark our desk calendars so as to be sure that nothing will prevent our attending the Iowa Academy of General Practice's postgraduate conference at the SUI College of Medicine. The dates are February 20-23, 1957.

All of the 170 physicians (114 of them Academy members) well remember the excellent program that was provided them last winter. Again this next February, Dr. W. C. Keettel, director of postgraduate studies, will provide an interesting scientific program. The speakers and topics have not yet been announced, but they soon will be.

The physicians of Iowa are very fortunate in having Dr. Norman B. Nelson as head of the College of Medicine at the State University. Dean Nelson has stated that the College of Medicine is obligated not only to train medical students but also to provide postgraduate instruction so that practicing physicians can be come better doctors.

As Academy members you will share with other physicians in the valuable scientific information offered at this postgraduate conference, and in addition you will qualify for Category I credit for the number of hours of instruction that you actually attend.

Don't wait! Make plans now to attend the IAGP Postgraduate Conference in February at Iowa City, and don't forget to sign your attendance card while you are there.

A PRIVILEGE AND A DUTY

Here in the United States, we have the most wonderful democracy in the world. But statistics from the national election last month demonstrated once again that a shocking percentage of American citizens either fail to realize their blessings, or do not recognize that they have a share of responsibility for keeping them. Despite the urgings of all candidates for office, and despite the concerted efforts of innumerable civic groups, the percentage of qualified voters who exercised their franchise was smaller than four years ago.

It is only when we stop to compare the effectiveness of elections here in the United States with the futility of elections conducted in most foreign countries that we realize our voting is not merely a privilege but a duty.

The national election is now over. Many citizens are happy that their favorite candidates were elected to office. Others are disappointed that theirs were not chosen. But those for whom we should feel sorry are those—and their number is unbelievable—who failed to vote. The question is: Why did they not vote? In most instances, they were not registered, or were incorrectly registered. In either case, they were guilty of negligence. A failure to vote is, in reality, the equivalent of two votes for the candidate to whom the non-voter was opposed.

There is no way of determining how many Iowa physicians neglected to cast ballots last month, but it is reasonable to assume that there were some. That is particularly unfortunate, for the doctor of medicine is held in high esteem by virtually all of his fellow citizens. They expect that "their doctor" will act as a leading citizen in their community, and when he fails to vote, he lets them down.

The general practitioner has the closest physician-patient relationship of any member of the medical profession. That relationship extends beyond the practice of medicine. It obligates the doctor to set an example for the many families of which he is a member *ex officio*, not just in matters of hygiene but in all other areas of interpersonal relationship. Government, in this country, is a principal one of those fields.

Lest anyone think that this article is as futile as locking the barn door after the horse has been stolen, let us all remember that each American is called upon to vote in at least one or two elections each year. Thus, doctors who neglected to qualify as voters in the presidential election should take immediate action by registering or correcting their obsolete registration. Then next time—not in the next presidential election, but when local officials are to be chosen, when party candidates are to be selected or when a bond issue is to be approved or rejected—they will be prepared to share as they are expected to do in the governing of this country. It is just as important and as much of a civic duty to vote in school and city elections as it is to cast a ballot for a presidential candidate.

Physicians, perform thy duty in all future elections!

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

ORGANIZED HOME MEDICAL CARE IN NEW YORK CITY, by the Hospital Council of Greater New York. (Cambridge, Massachusetts, Harvard University Press, 1956. $8.00).

CLINICAL UNIPOLAR ELECTROCARDIOGRAPHY, Third Edition, by *Bernard S. Lipman*, M.D., and *Edward Massie*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $7.50).

THE YEAR BOOK OF PEDIATRICS (1956-1957 Year Book Series), ed. by *Sydney S. Gellis*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $6.95).

CLINICAL EXAMINATIONS IN NEUROLOGY, by Members of the Sections of Neurology and Physiology, Mayo Clinic. (Philadelphia, W. B. Saunders Co., 1956. $7.50).

PRINCIPLES OF CLINICAL ELECTROCARDIOGRAPHY, by *Mervin J. Goldman*, M.D. (Los Altos, California, Lange Medical Publications, 1956. $4.50).

PRACTICAL PEDIATRIC DERMATOLOGY, by *Morris Leider*, M.D. (St. Louis, C.V. Mosby Company, 1956. $10.50).

PRE AND POSTOPERATIVE CARE OF THE PEDIATRIC SURGICAL PATIENT, by *William B. Kiesewetter*, M.D. (Chicago, The Year Book Publishers, Inc., 1956. $7.00).

BOOK REVIEWS

EXCITABILITY OF THE HEART, by *Chandler McC. Brooks, Brian F. Hossman, E. E. Suckling* and *Oscar Orias*. (New York, Grune & Stratton, Inc., 1955. $6.50).

This book is a review of a considerable amount of research by the authors, plus extensive reference material. Although this monograph is full of minute detail, including experimental technics, it has considerable practical application, especially in the new field of intracardiac surgery and its postoperative complications.—*John Gustafson*, M.D.

TREATMENT OF HEART DISEASE, by *Harry Gross*, M.D., and *Abraham Jezer*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $13.00).

This is an eminently practical new work concerned primarily with the "how to do it" aspects of therapy in heart disease.

Dosage and commercially available preparations of digitalis and other drugs are carefully spelled out. The personal preferences and experiences of the authors with various therapeutic approaches are clearly indicated. For example, the use of anticoagulant therapy is outlined in detail, though the authors express the opinion that such drugs are not indicated routinely in myocardial infarction. There are excellent chapters on "Living With a Sick Heart" and on rehabilitation. Many practical suggestions are contained in an appendix on diet, and the problem of sodium restriction is given particular attention in recipes and menus.

Every physician who treats patients with heart disease will find numerous occasions in his daily practice to refer to this volume.—*Herman J. Smith*, M.D.

A DOCTOR'S MARITAL GUIDE FOR PATIENTS, by *Bernard R. Greenblat*, M.D. (Chicago, The Budlong Press, 1956. $1.50).

This is a very fine and concise sex guide for those who are about to be married, or in many cases, for those who are already married. It is divided into three main parts: (1) Some Facts of Life; (2) The Sexual Act; and (3) Conception and Pregnancy. Each part is well written and should be easily understood by those not acquainted with medical terminology.

I feel that one of the praiseworthy features of this book is that it does not approach the subject with great solemnity. Rather, it is obviously the author's intention to help people do what more or less should come naturally.

Special problems do require consultation with a physician, but quite as Dr. Greenblat has hoped, this book "can be a guide and an encouragement to helpful sexual relations." I recommend it as a simple and understandable guide that is in no way offensive.

This book is available in standard or Roman Catholic editions, and it can be secured only on a physician's prescription.—*H. Kirby Shiffler*, M.D.

ROENTGEN SIGNS IN CLINICAL DIAGNOSIS, by *Isadore Meschan*, M.D. (Philadelphia, W. B. Saunders Company, 1956. $20.00).

This unique text represents a new method of presentation of the vast amount of material which the medical student, resident in radiology or practicing physician must learn in order to become adept in roentgen diagnosis. As stated in the preface, "The book presents the fundamentals of radiology rearranged on the basis of objective signs as seen in roentgenograms. The text is organized to promote some idea of the limitations as well as accuracy in roentgen diagnosis by pointing to the technical and anatomical facets behind roentgen signs. It is organized to lead the reader to systematic thinking and analysis of roentgen signs prior to the formation of definitive diagnosis."

The teaching of radiology is divided into three phases. The first is normal radiographic anatomy. Dr. Meschan's earlier text, ATLAS OF NORMAL RADIOGRAPHIC ANATOMY, is used as a basis, and illustrations and diagrams from it are used in demonstrating some points. The second phase of teaching is the presentation of the roentgen signs which make up the basic concepts of

roentgenographic pathology. No attempt is made at diagnosis at this point; rather, a presentation is given of the changes in size, contour, density, position and function which roentgen films may show in various organs. The third phase of teaching concerns organization of material as an approach to clinical diagnosis or to a limiting of the clinical possibilities.

In general, the 31 chapters in the book are arranged according to anatomic systems. The first few constitute an introduction to radiology and include basic information about radiographic technic, physics and protection. Eleven chapters are concerned with bone anomalies, diseases and trauma. There are two on radiolucent bone diseases, and one on osteosclerotic bone diseases. This arrangement facilitates use of the book as a reference. The remaining chapters are concerned with the rest of the anatomic systems of the body, and present material for each system according to the three phases of teaching that I have described.

There are 2,216 illustrations and 780 figures. The illustrations, tables and diagrams are among the most useful parts of the book, for they present in vivid form the radiographic anatomy and pathology which one must master if he is to use roentgen diagnosis effectively. It is fortunate that the author has reproduced most of the tables and measurements which are used in everyday radiology, but which are often difficult to locate when one needs them. These include such information as appearance of ossification centers, names of various kinds of orthopedic appliances, tabulations of clinical data concerning disease, pineal localization, endocrine abnormalities, measurements of degree of scoliosis, measurement of heart size and pelvic measurements. There is a complete and efficient index. The bibliography is intentionally limited to key references.

This is not just a reference, but a text written in a manner that holds the reader's interest. It would be a useful addition to the library of every radiologist and every physician interested in radiology, and it will on doubt be regarded as a necessity wherever the teaching of radiology in undertaken.—*James T. McMillan,* M.D.

Electrodiagnosis and Electromyography, Vol. I, ed. by *Sidney Licht,* M.D. (New Haven, Elizabeth Licht, Publisher, 1956. $10.00).

At first glance, a treatise dealing with the clinical application of electro-neuro-physiology would appear to be of little or no interest to the physician who does not deal exclusively with disorders of the nervous system. But I believe that most physicians, regardless of their field of specialization, will find interesting general information and even some useful data in this volume, and moreover that they will enjoy reading part or all of it.

The introductory chapter, dealing with the history of electricity in medicine, is concise and interesting reading. The second, and admittedly technical chapter, deals with the physics of the use of electricity for neuro-diagnosis, and describes the different types of apparatus that are used, particularly in electromyography. The third chapter treats the physiology in skeletal muscle, and is necessarily academic. The fourth chapter outlines the motor points used for electrical stimulation and includes useful diagrams and tables. Routine electrodiagnosis in human nerve-muscle preparations is then described. There are separate chapters on the phenomena of chronaxy, strength-duration curves, and progressive and alternating currents. The ninth chapter deals with the practical applications of electromyography, and includes different clinical states in which muscle disease is a part of the disease process. The tenth chapter describes electrical skin resistance, and includes useful dermatome diagrams. The appendix has two separate sections, one on electroencephalography and one on electroretinography.

Twelve different authors have contributed sections to this book, and consequently a certain unevenness of style and presentation can be noted. However, the text is well edited, with the result that there is a minimum of overlapping and that it reads well. Although very few of us can lay claim to being electro-neuro-physiologists, we must face up to the fact that the use of electrodiagnosis is certain to increase. I recommend this text as a fine means of reviewing vaguely-remembered basic material, and as a means of regaining appreciation for the practical uses that these measures can have in diagnosis.—*John T. Bakody,* M.D.

TEST FOR BREAST CANCER

A team of Montreal doctors, R. M. Lawson, A. L. Saunders and R. D. Cowen, have suggested that heptaldehyde, a chemical found in rancid fat, together with measurements of skin temperature, may provide the long-sought definitive diagnostic test for breast cancer.*

They report that 80 per cent of a group of breast-cancer patients experienced pain or "a tight, sticking feeling" in the region of the cancer within minutes after the new drug had been administered. In all of them, elevated skin temperatures over the cancers were observed to drop suddenly. Heptaldehyde had no effect on skin temperature in patients having non-cancerous tumor.

The skin-temperature test for breast cancer was first reported about two months ago by Dr. Lawson. Investigation of heptaldehyde was prompted by the observation that among Eskimo women, whose diet contains a high proportion of rancid fat, no case of breast cancer has been reported.

The authors believe that the combination of skin-temperature measurement and heptaldehyde administration may eliminate the need for diagnostic breast surgery. It is estimated that biopsy presently reveals breast cancer in no more than five per cent of the cases in which it is used. Thus, a test such as they propose, if proved thoroughly reliable, could dispense with 95 per cent of diagnostic breast operations.

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* Lawson, R. M., Saunders, A. L., and Cowen, R. D.: Breast cancer and heptaldehyde. Canadian M.A.J., 75:486ff., (Sept. 20) 1956.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

MORBIDITY REPORT FOR MONTH OF OCTOBER

Disease	*1956 Oct.*	*1956 Sept.*	*1955 Oct.*	*Most Cases Reported From These Counties*
Diphtheria	0	0	1	
Scarlet Fever .	45	23	25	Polk
Typhoid Fever	0	1	3	
Smallpox	0	0	0	
Measles	158	51	74	Linn, Mills, Polk, Wright
Whooping Cough	55	35	62	Des Moines, Polk, Pottawattamie
Brucellosis ...	25	16	25	Cedar 2, Cherokee 2, Dubuque 2, Mahaska 3, Plymouth 2; other scattered 1 to a county
Chickenpox ..	119	30	125	Black Hawk, Polk, Scott, Story
Meningococcus Meningitis ..	0	3	1	
Mumps	73	50	68	Des Moines, Linn, Polk, Scott
Poliomyelitis ..	62	300	48	Black Hawk, Jasper, Woodbury
Infectious Hepatitis ...	13	22	24	Clinton
Rabies in Animals	17	12	9	Linn 2, Scott 2, 1 each Cerro Gordo, Chickasaw, Clarke, Clinton, Lucas, Marion, Marshall, Plymouth, Pocahontas, Sac and Webster
Malaria	0	2	0	
Psittacosis	1	1	3	Page
Q Fever	0	0	0	
Tuberculosis ..	36	24	55	For the State
Syphilis	148	94	105	For the State
Gonorrhea	30	55	99	For the State
Histoplasmosis	2	1	1	Iowa, Woodbury
Food Intoxication	0	10	0	
Meningitis (Type Undet.)	3	7	1	Black Hawk, Clinton, Osceola
Diphtheria Carrier	0	1	0	
Asceptic Meningitis ..	0	3	0	
Salmonellosis .	0	1	0	
Blastomyecosis	0	1	0	
Tetanus	0	2	0	
Chancroid	0	1	0	
Coxsackie B-5	1	22	0	Page
Encephalitis ..	3	5	3	Black Hawk 2, Dubuque 1
Influenzal Meningitis ..	1	2	1	Wapello
Amebiasis	2	1	0	Cass, Montgomery
Clostridium Welchii	1	0	0	Polk
Shigellosis	4	0	0	Hancock

CHANGES IN ISOLATION REQUIREMENTS FOR POLIO CONTACTS

Extensive evidence has now accumulated to prove that poliomyelitis vaccine does afford protection from the disease, and that it also reduces the immunized person's chances of becoming an immune carrier of it.

For those reasons, the Iowa State Board of Health, at a special meeting on October 17, 1956, agreed that persons who have had at least two injections of poliomyelitis vaccine need not be excluded from public activities, provided that the second injection of the vaccine was given 30 or more days previous to the date of their last exposure to an infectious case.

For those persons who have *not* had the two injections of poliomyelitis vaccine as stated above, the isolation period remains "until 7 days after last exposure."

POLIOMYELITIS IN IOWA, 1956

The peak of incidence of poliomyelitis this year in Iowa was reached in the first week of September, with 82 reported cases. For the subsequent 10 weeks, the decline was continuous. Ten cases, two of them paralytic, were reported for the week ending November 3. The 603 cases reported through November 3 include 35 paralytic, 522 non-paralytic and 46 non-specified. For the same period last year, 532 cases were reported. In Iowa, 1956 like 1955 has been a low year.

Although our case rate for 1956 is similar to that for 1955, nationally, the case rate is just about one-half what it was last year.

Iowa may also have had a reduction in poliomyelitis incidence this year. Many of the cases reported as "poliomyelitis" were not poliomyelitis, but were illnesses due to coxsackie viruses. To date, on the basis of virus studies, the diagnoses in 4 cases in Polk, 13 in Cerro Gordo, 2 in Dubuque and 1 in Page Counties originally reported as "poliomyelitis" have been changed to "coxsackie infection." These have already been deleted from the state's total of poliomyelitis cases. When laboratory examinations have been completed, it is quite probable that dozens more will be shown not to have been poliomyelitis.

POLIOMYELITIS CASES FOR IOWA—1956

(Through November 3)

County	New Cases	Total Cases
Allamakee		5
Benton		1
Black Hawk	1	69
Boone		9
Bremer		1
Buchanan		3
Butler		2
Calhoun		4
Carroll		3
Cass		1
Cedar		5
Cerro Gordo		33
Cherokee		4
Chickasaw		4
Clay		10
Clayton		2
Clinton	2	7
Dallas		8
Davis		1
Decatur		1
Delaware		8
Des Moines		3
Dubuque		51
Dickinson		1
Emmet		1
Floyd		6
Fayette	1	6
Franklin		8
Fremont		3
Grundy		2
Guthrie		5
Hamilton	1	3
Hancock		8
Hardin		8
Harrison		4
Henry		2
Howard		1
Ida		1
Iowa		1
Jasper		11
Johnson		12
Jones		4
Keokuk		1
Kossuth		4
Lee		12
Linn		21
Louisa		1
Lucas		2
Madison		2
Mahaska		6
Marion	1	10
Mitchell		6
Monona		1
Monroe		1
Montgomery		1
Muscatine		3
O'Brien		1
Osceola		3
Page		7
Plymouth	1	5
Pocahontas		2
Polk	1	98
Pottawattamie	2	13
Poweshiek		3
Ringgold		1
Sac		1
Scott		3
Sioux		2
Story		20
Tama		2
Van Buren		1
Wapello		1
Warren		6
Washington		1
Wayne		3
Webster		13
Winnebago		3
Winneshiek		3
Woodbury		15
Wright		3
	10	603

	This Wk.	Total
Paralytic	2	35
Non-paralytic	7	522
Unspecified	1	46
	10	603

County	New Cases	Total Cases
Total same week last year		10
Total same time last year		532
Total cases last week		13
Total cases this week		10

GOVERNMENT SPONSORS LARGE-SCALE STUDIES OF CEREBRAL PALSY

Federal grants of more than $700,000 were made on November 1 to Yale University and to Brown University to finance four-year investigations of the causes of cerebral palsy. The surgeon-general of U.S.P.H.S., Dr. Leroy E. Burney, says that the program, when it is fully launched, will be an exceptionally large one. Ten or a dozen more schools are to be given money for this work, and in about 10 years from now it is anticipated that more than 6,000 cerebral palsy victims will be studied annually. Under this program of the National Institute of Neurological Diseases and Blindness, more than $1,000,000 yearly will be awarded to medical insitutions.

Mothers, infants and children will be studied over a period of several years, and data will be collected concerning family history, pregnancy and prenatal history, events at birth, and complete physical and psychologic history of the child's initial stay in the hospital. Scientists anticipate that more than 600 infants in the over-all study will be found to have neurologic disorders, and they will receive follow-up study.

It is expected that these studies will clarify the roles of heredity, brain injury and brain hemorrhage, lack of oxygen, difficulty in breathing, prenatal and postnatal infection, and anemia of the newborn in the development of neurologic disorders.

ORGANOMERCURIALS HELP DIFFERENTIATE ASTHMAS

Organomercurial agents are reported to be useful diagnostic aids in the difficult problem of differentiating between cardiac and bronchial asthmas, both of which produce paroxysms. Subcutaneous injection of an organomercurial diuretic produces a positive response in cardiac asthma and in mixed cases of bronchial and cardiac asthma, according to an article in the current issue of the DIURETIC REVIEW*, a publication of Lakeside Laboratories, Milwaukee.

The dangers inherent in morphine and epinephrine rule them out for differential diagnosis in bronchial and cardiac asthma. The report says that positive response following parenteral administration of organomercurial agents consists of substantial diuresis and rapid relief of symptoms.

* 5:49, 56



Woman's Auxiliary News



OUR PRESIDENT SAYS

In America at Christmastime, people of all sects and national backgrounds join in the traditions of the Christmas Carol. Here, in blessed security and freedom, men, women and children follow the practices of generations by decking their homes and churches with symbolic ornaments. Choirs, in their vestments, raise clear, unafraid voices to sing joyously the message of the angel, "Peace on earth; good will to men."

The Christmas morning worship, the candlelight services on Christmas Eve, the beautiful and brilliantly lighted trees and homes, the glistening white snow, the poinsettias, the mistletoe, the spicy smell of balsam and evergreen, a profusion of gaily-wrapped gifts, tables laden with food, the excited and shining faces of children as they listen to Christmas tales, a spirit of fellowship and good will—these are the scenes of Christmas in our America!

I couldn't have wished for you a more blessed Thanksgiving Day than every American experienced this past month. We have been privileged to walk freely and proudly to the polls, and have voted for the individuals of our choice to help guide the destiny of our country. Our homes are crowded with food and the comforts of living, and now our thoughts are turning to Christmas giving.

Let us not forget that this giving is but a symbol to remind us of the birthday of Jesus, who gave himself so that we might know and love tolerance humility and charity. It is not the gift but the giving in His name that is important. The spirit of Christmas is something that we must carry with us all the year, and its joys are the sharing and the giving. Let us wives of doctors be proud and grateful that we can share with our husbands in giving to our communities *good health, our greatest heritage.* Our husbands' days are long and their responsibilities are many. We must share their time with all who need their professional attention, but along with them, we are rich in that they are free to choose their field of work and their place of work. They are not forced to treat the sick and injured at the point of a gun or under a rain of bombs, and they have all of the drugs and equipment that modern science has provided. One and all, let us cherish our freedoms, and from our great plenty, let us share with others in humility and thankfulness.

I heard the bells on Christmas Day
Their old familiar carols play;
And wild and sweet the word repeat
Of peace on earth, good will to men.

And in despair I bowed my head.
There is no peace on earth, I said,
For hate is strong and mocks the song
Of peace on earth, good will to men.

Then pealed the bells more loud and deep,
God is not dead, and doth not sleep;
The wrong shall fail, the right prevail
With peace on earth, good will to men.
—Henry Wadsworth Longfellow

I wish for you, for your families and friends, and for the staff at the Iowa State Medical Society's headquarters office a Joyous Christmas; and may the Spirit of Christmas be with you all the year. God bless you, every one!

Jane King
President

COUNTY AUXILIARIES

Boone

The Woman's Auxiliary to the Boone County Medical Society entertained at its annual tea for Future Nurses, on October 18 at the Holst Hotel in Boone. The 50 or more girls who attended represented Ogden, Madrid, Pilot Mound, Boxholm, United Community (Napier and Jordan), Sacred Heart (Boone) and Boone high schools.

Mrs. B. T. Whitaker, program chairman, introduced the speakers, Miss Carolyn Herman, a first-year student in nurses' training at SUI and last year's president of the Boone High School Future Nurses Club, and Miss Irene Nelson, a second-year student at Iowa Methodist Hospital, Des Moines.

Mrs. A. W. Puntenney served as general chairman of arrangements. Her committee chairmen were Mesdames Ralph Wicks, T. E. Kane, John Wall, W. H. Longworth, and E. E. Linder. Gifts of appreciation were presented to the speakers.

Grundy

Approximately 90 persons met on Wednesday, October 24, in the Memorial room of the Grundy County Hospital to hear Dr. Herbert Merillat, Des Moines psychiatrist. In addition to members of the Grundy County Medical Society and its Auxiliary, the group included local school administrators, ministers, organization leaders, newspaper editors, nurses and other hospital employees.

Dr. Merillat told of the present facilities for mental care in Iowa and outlined future plans and trends. He explained the major forms of therapy in present use and suggested guiding principles for planning the improvement of facilities and staff. A lively question-and-answer period followed his address.

Mrs. George Gould and Mrs. Henry Mol presided at the coffee table, which had been decorated in a United Nations Day theme by Mrs. Sam McAllister, the Hospital dietician. Over-all arrangements for the evening had been made by Mrs. Hugo Kahler, president of the Grundy County Medical Society.

Mahaska

The Mahaska County Medical Auxiliary met on Tuesday, October 9, at the Downing Hotel for a one o'clock luncheon, at which Mrs. George Atkinson, the president, presided.

Plans for the centennial banquet of the Mahaska County Medical Society, November 2, were discussed, and it was decided to conduct a poster contest for all seventh and eighth grade students as a means of stimulating interest in the fact that this is the Mahaska County Society's hundredth year.

Polk

The Auxiliary to the Polk County Medical Society met on November 9 in the Garden Room of the Hotel Kirkwood, in Des Moines. Mrs. D. C. Wirtz, president, took charge of the business meeting. It was followed by a program presented by the Kehm Floral Company on "Holiday Ideas." The hostesses for the meeting were Mesdames Everett A. Nitzke, Walter Abbott and George Watters.

At Yonkers during the week of October 29-November 3, the Polk County Medical Auxiliary, along with the Iowa Society for Crippled Children and Adults, held the annual sale of articles produced by handicapped persons. The sale was a huge success. Mrs. H. E. Wichern was chairman and Mrs. D. F. Crowley, Jr., was co-chairman.

Members of the Polk County Medical Society and their wives attended a dinner at the Hotel Fort Des Moines on October 17 and heard some excellent speeches concerning the doctor-hospital controversy. Dr. Wendell Downing, Mr. Philip Cless and Mr. Robert Throckmorton discussed the problem. Members of the state legislature were guests at the dinner meeting.

IN MEMORIAM

Members of the Woman's Auxiliary to the Iowa State Medical Society are deeply saddened to learn of the death, on October 7, of Dr. Ross Ervin Gunn, of Boone.

THE CHATTER BOX

Hello:

Our apologies for having only Des Moines news in this column this month. As a matter of fact, as we write this material for the December issue of the NEWS, most of you probably don't know that we've started CHATTERBOX, for the reprints from the November JOURNAL OF THE IOWA STATE MEDICAL SOCIETY haven't been mailed to you. We want you to know that we have no intention to be partial, and that we're anxious to have you send us news of births, anniversaries, vacations and anything else that you think would interest Auxilary members throughout Iowa. We intend this to be *your* column!

Ev and Virginia George have sold their beautiful home on Foster Drive, in Des Moines, to **Dr. Grace Doane.** Happy house-hunting, Ginny and Ev!

The **Newlands'** house rocks with activity these days, since the arrival of **Michael** last month. **Barb and Don** are looking forward to the days when their three sons will be playing together on Hawkeye teams. We understand that Don really appreciates Barb's consideration of SUI's need for football men. Congratulations, Barb and Don.

Frederick Schissel has joined two brothers and two sisters, his parents being **Jean and Don.**

Unfortunately, the Schissel family's happiness was marred recently when **Kathy**, age nine, was struck by a truck on her way to school. We are pleased to report that she is resting comfortably in Blank Hospital as this is written.—Or at least she's as comfortable as one can be with a broken leg. Get well soon, Kathy!

Florence and Tom Corcoran journeyed to Chicago, where Dr. Tom gave a paper and Florence, we hope, was a lady of leisure.

Future Nurses Honored



Approximately 200 girls from about 50 Future Nurses Clubs throughout Iowa attended a conference on careers in nursing sponsored by the Woman's Auxiliary to the Iowa State Medical Society on November 2. The day's program included tours of four Des Moines hospitals, panel discussions and a "capping" ceremony for the future nurses.

The day closed with a tea in the Drake University Administration Building lounge. Members of the classes from each of the schools of nursing in Des Moines were present to answer questions on nursing careers.

In the picture, Mrs. Ralph Hines, of Des Moines, president of the Woman's Auxiliary to the Polk County Medical Society, is shown capping one of the F.N.C. members, while others look on.

Liza and Chuck Latchem, though disappointed at their inability to get Broadmoor reservations, proved good old Omaha can be a most restful spot!

Most of us have just a touch of "Rose Bowl fever," while some of us are really smitten with it. But whatever the outcome, **Evy**'s done a fine job!

Lue and Chet Woodburn and **Joan and Bob Allender** trekked to Minneapolis to see Iowa beat Minnesota. The boys appreciate your support, folks!

Martha and Bob Knox and **"Benjie" and Dan Crowley** attended the American College of Surgeons meeting in San Francisco last month. They have given us "the word" that when we are in San Francisco none of us should miss visiting "The Hungry i."

Help fight tuberculosis. Buy and use Christmas seals!

So long until next month! We hope you have enjoyed our chit-chat, and we hope that you will contribute items for us to broadcast. Remember that your friends all over the state are interested in your goings and comings!

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. Dean H. King, 301 E. 4th Street, Spencer
President-Elect—Mrs. J. F. Gerken, Waterloo
Secretary—Mrs. Robert P. Mason, 5818 Chamberlain Drive, Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

FOR POSITIVE DIURESIS

ROLICTON*

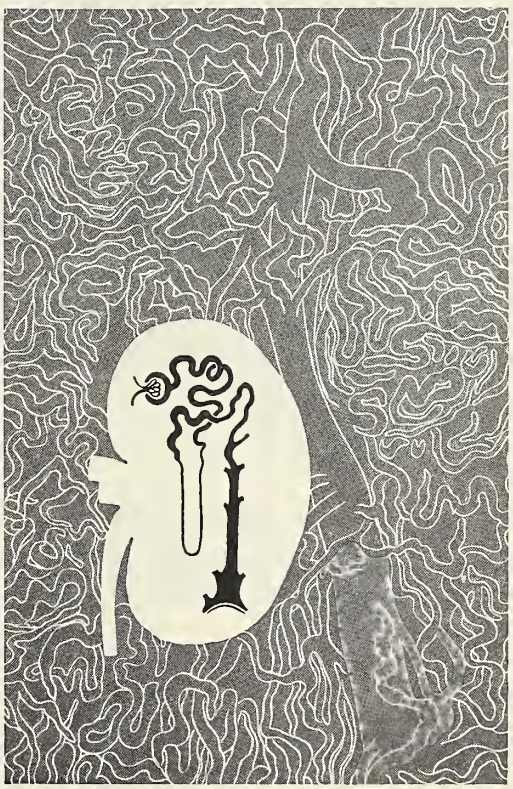
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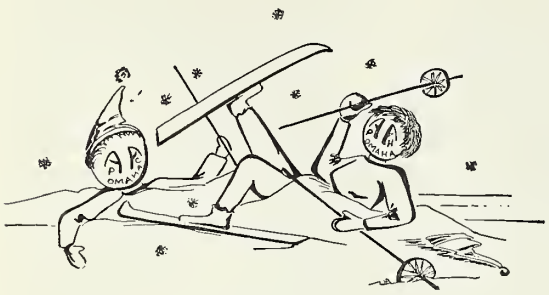
In most edematous patients Rolicton may be employed as the sole diuretic agent. When used adjunctively in severe cases, Rolicton is also valuable in eliminating the "peaks and valleys" associated with the parenteral administration of mercurial diuretics.

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PERSONALS

Three Iowans were inducted on October 12 as fellows of the American College of Surgeons. They are **Drs. Gordon W. Gray**, Des Moines; **Edward E. Mason**, SUI Department of Surgery; and **Philip J. Monnig**, Sioux City.

Dr. Cecil M. Zukerman is a party to an application that has been made for a change in the Davenport zoning laws preliminary to the construction of a medical clinic at the corner of Main and Locust Streets. It has been reported that the structure, when completed, will be occupied by as many as 10 or 11 physicians.

Dr. Ralph R. Simmons, of Des Moines, who is president of the Association of Life Insurance Medical Directors of America and presided at that organization's annual meeting in New Orleans in October, retired last month as medical director of the Equitable Life Insurance Company of Iowa.

Upon Dr. Simmons' retirement, **Dr. William O. Purdy** and **Dr. Charles A. Nordin** each moved up one notch. Dr. Purdy, who became medical director of the Company, received his medical education at the University of Virginia and joined the staff in Des Moines in 1936. Dr. Nordin, a medical graduate of the University of Minnesota who has been assistant medical director since 1948, has taken over the post vacated by Dr. Purdy, that of associate medical director.

Dr. Jack T. Harris, who has practiced for 10 years at LuVerne, recently accepted a post at the Iowa State Teachers College health service in Cedar Falls. He began work there November 1.

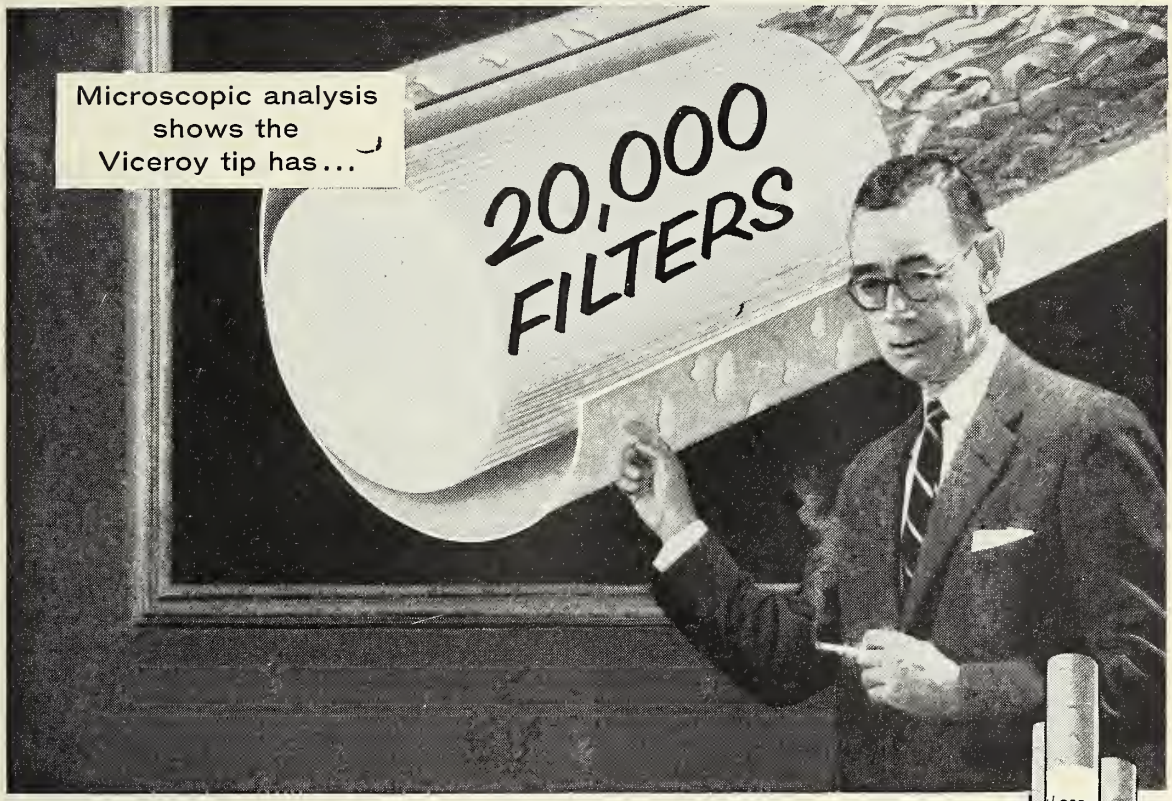
Dr. M. J. McGrane was named "Man of the Year" on October 18 by the Rotary Club of New Hampton. His citation commended his willingness to serve his community and the people in need of care, regardless of their ability to pay. He has practiced in New Hampton since 1915.

Dr. Louis B. Bray, a native of Dubuque who holds a medical degree from Loyola University, Chicago, and interned at St. Vincent's Hospital, Cleveland, has opened an office at Waukon.

Dr. S. J. Altman, a medical graduate of the University of Pennsylvania who has specialized in the medical and surgical treatment of diseases of the eye in Pittsburgh for the past 10 years, has taken over the practice of the late **Dr. Ralph Anrode**, in Davenport.

HERE'S WHY SO MANY DOCTORS NOW SMOKE AND RECOMMEND

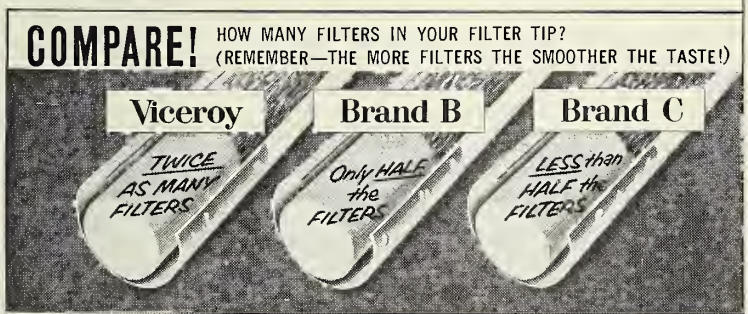
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Dr. R. L. Olson, of Northwood, received chest injuries and a severe concussion on October 18, when his car was struck by a loaded gravel truck at a country road intersection.

Dr. J. J. Gleeson, who has been stationed at Fargo, North Dakota, has received his discharge from the Navy and will shortly resume his practice at Vail.

At the fall scientific session of the Iowa Trudeau Society at the Hotel Chieftain, Council Bluffs, on October 28, the Iowa physicians who spoke included **Drs. C. E. Radcliffe, Herbert Hasenclever, Ian Maclean Smith** and **J. L. Ehrenhaft,** all of the SUI College of Medicine, and **Dr. D. F. Crowley, Jr.,** of Des Moines.

Carroll County was selected by the State Hearing Conservation Committee for a pilot study under the sponsorship of the county medical society there. In November, children who had failed to pass an initial screening test were given a second examination. **Drs. A. Reas Anneberg** and **W. L. McConkie,** of Carroll, participated. Youngsters found to have remediable hearing difficulties were referred to their family doctors for treatment.

Drs. C. W. Latchem and **E. T. Burke,** urologists, have occupied their newly constructed 8-room office building on Twenty-eighth Street between Grand and Ingersoll Avenues, in Des Moines.

Dr. S. F. Singer, an Ottumwa radiologist, was presented the American Cancer Society's bronze medal for distinguished service by **Dr. H. W. Morgan,** of Mason City, at a meeting of the Ottumwa Kiwanis Club recently. He will be further honored at a meeting of the Cancer Society to be held in New York City.

Dr. D. Terry, an instructor in medicine at the Creighton University Medical School, spoke on pericarditis at a dinner meeting of the Carroll County Medical Society on October 24. **Drs. W. C. Mulry** and **J. M. Tierney,** of Carroll, spoke on various phases of legislation of interest to physicians.

On Hallowe'en Night, a bag belonging to **Dr. N. M. Hansen,** of Des Moines, and containing $200 worth of instruments and narcotics was stolen from his car parked in the driveway of his home.

Professor Frederick D. Lewis, of the Drake University Law School, was guest speaker at a joint



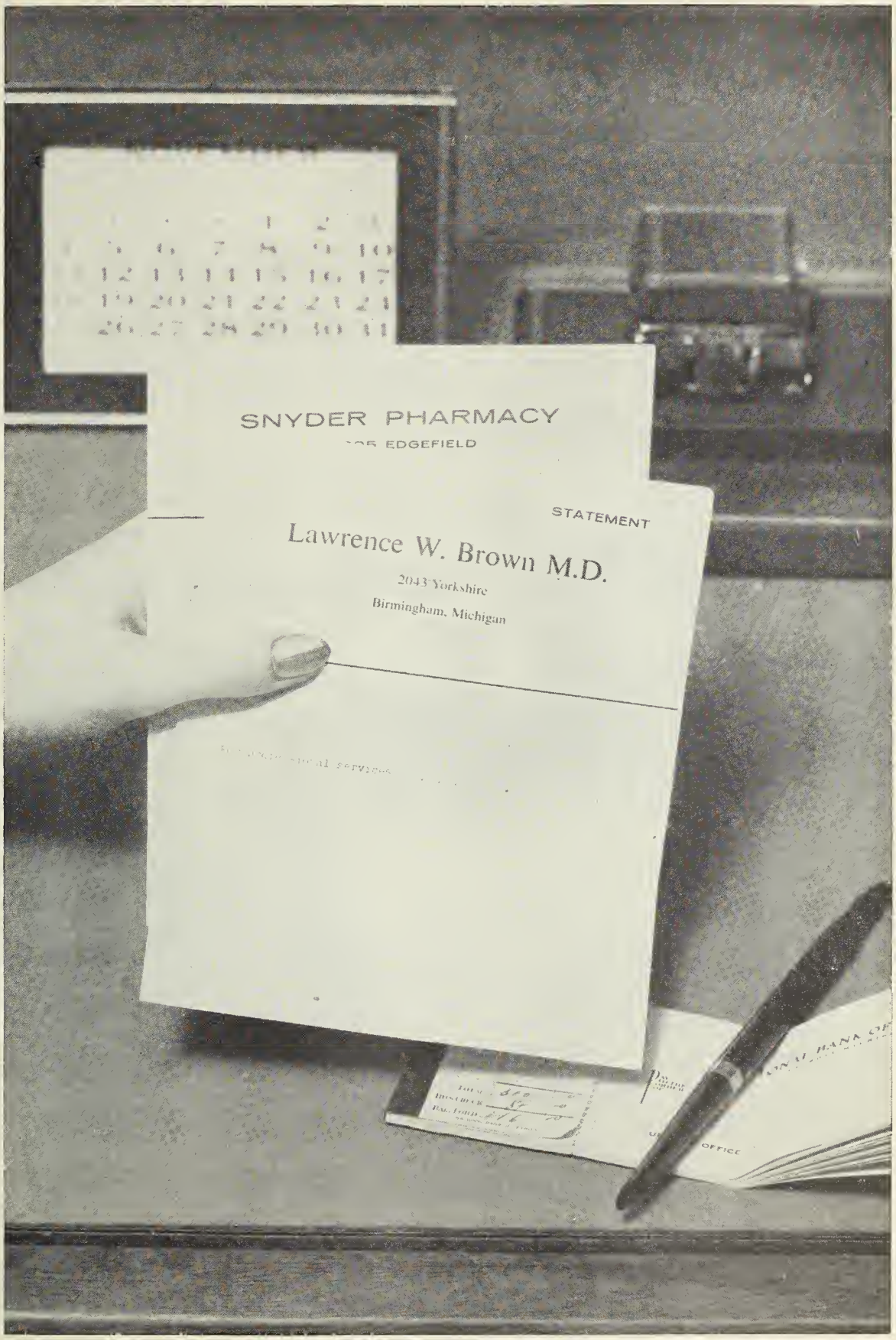
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meeting of the Woodbury County medical and bar organizations, in Sioux City on November 1. It was the second such gathering in what is planned to be an annual series.

On November 7, **Dr. J. A. Myers**, professor of medicine at the University of Minnesota, addressed a meeting of the Johnson County Medical Society at the State Sanitorium there, on "The Importance of Pathogenesis of Tuberculosis in Diagnosis, Treatment and Prevention."

Dr. R. G. Klocksiem, of Rockwell City, has been appointed coroner of Calhoun County to complete the term of the layman elected to the office, who recently resigned.

Dr. Amandus H. Grau, of Denison, has been in Vienna for a month, working with the International College of Surgeons.

At Ames, **Drs. J. G. Fellows, L. E. Rosebrook** and **J. A. Caffrey** moved into their new office building at 521 Duff Avenue, on November 3. The Apothecary Shop will set up a branch in the recently-completed structure.

Dr. Ralph Dyson, Des Moines pediatrician, rather infrequently demonstrates his skill at bowling, but he is nevertheless earning himself a local reputation in the sport. The series of 203-201-267 that he rolled on November 4 was the fourth best on Des Moines lanes this season. His average last year was 165, and so far this year it is 212.

Dr. Gerald E. Larson will return to practice in Elk Horn early in December. He has been stationed at the Bermuda installation of the U. S. Air Force for almost two years.

Dr. Eric M. Swanson has begun the practice of ophthalmology in Fort Dodge. He received his M.D. degree at the University of Nebraska and his residency training at the S.U.I. College of Medicine.

Dr. Louis R. Greco has been named city health officer at Boone, replacing the late **Dr. R. E. Gunn.**

In mid-October, **Dr. W. B. Sperow**, of Nevada, and two companions from Burlington shot two six-point bucks and one four-point buck within just three hours near Douglas, Wyoming.

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Dr. R. M. Turner has returned to Armstrong to resume his medical practice after two years of Army service, most of it in Augsburg, Germany. He received EENT training at Letterman General Hospital, San Francisco, before going overseas.

Dr. Raymond G. Berggreen, a pediatrician, has returned to his practice in Mason City, following two years of Navy service. He has been stationed in Memphis.

The Dubuque County Medical Society joined with the Dubuque County Association for Mentally Retarded Children and the Dubuque Adult Evening School in sponsoring a forum on mental retardation October 23. Among the guest speakers was **Dr. R. R. Rembolt,** director of the Hospital School for Severely Handicapped Children, in Iowa City.

Dr. Eugene Stockdale, who located in Whittemore on August 1, left on November 1 for South Africa, where he is to become physician in a leper colony.

Dr. Reynold R. Maixner purchased the equipment of **Dr. J. F. Veltman** and began practice at Winterset early in November. He is a 1954 graduate of the University of Nebraska College of Medicine, and recently completed an internship and a year of G-P residency at Hurley Hospital, in Flint, Michigan.

In mid-October, **Dr. A. W. Glaess** was moved from Michael Reese Hospital, Chicago, to Jane Lamb Memorial Hospital, Clinton, to complete his recovery from poliomyelitis. He will resume his work as radiologist at Jane Lamb the first of next year.

The medical societies of Harrison, Shelby and Crawford Counties are considering a merger. Plans for the combination were discussed in October, when the Shelby County Medical Society entertained the Harrison County doctors and their wives at dinner in Harlan.

Dr. A. E. Berry, a Newton EENT specialist, has opened a second office at Knoxville and plans to practice there on Saturday of each week.

Dr. Vincent Vaughn, of Ottumwa, addressed the meeting of the American College of Anesthesiology at Kansas City, in October, on "Uses of Hypnosis in Anesthesia."

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General Surgery, Two Weeks, April 23
Surgical Anatomy & Clinical Surgery, Two Weeks, March 4
Surgical Pathology, 2 or 4 Weeks, by appointment
Basic Principles in General Surgery, Two Weeks, January 14
Fractures & Traumatic Surgery, Two Weeks, March 11
Anesthesia, 2 or 4 Weeks, by appointment

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, February 11
Vaginal Approach to Pelvic Surgery, One Week, February 4
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*Fishberg, A. M.: Hypertension and Nephritis, ed. 5, Philadelphia, Lea & Febiger, 1954, pp. 177-178.

00756

Citizens of Maquoketa who had objected to the proposal by **Dr. F. J. Swift, Jr.**, to build a clinic at the corner of Quarry and Vermont Streets there, on the grounds that it might create a traffic hazard, were apparently satisfied when the doctor declared his intention of providing off-the-street parking for 14-16 cars.

Dr. Arnold T. Nielsen moved into his new office building at Third and Walnut Streets in Ankeny on October 15.

Drs. Robert M. Powell, John K. MacGregor and **F. William Saul** conducted a public forum on cancer at the Hotel Hanford, in Mason City on October 11, under the sponsorship of the Cerro Gordo County chapter of the American Cancer Society.

Dr. William F. Boiler, of Iowa City, has announced his retirement from EENT practice.

A new 25-room clinic building is to be constructed in Cedar Falls for **Dr. R. F. Nielsen.** It is expected to cost $44,000.

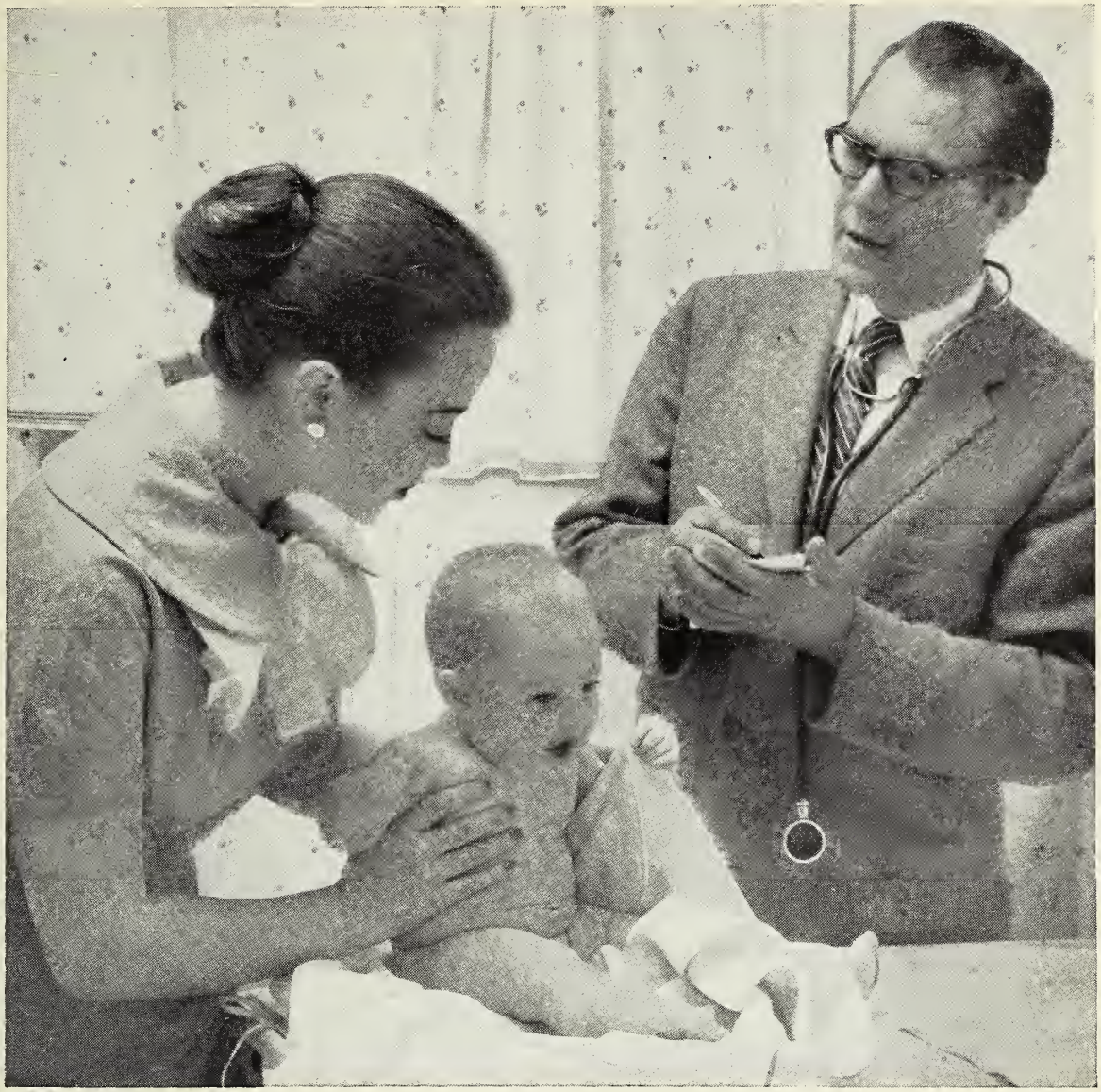
At the November 16 meeting of the Polk County Medical Society, **Dr. Irving M. Ariel,** of New York City, spoke on "Changing Trends in the Treatment of Cancer and Their End Results." The meeting on December 19 is to be held at Broadlawns-Polk County Hospital, and the staff there is to provide a scientific program on "The Use of 'Happiness Drugs' in Medical Practice."

The Southwest Iowa Medical Society invited the doctors from the area surrounding Winterset to a dinner meeting at the Country Club near there on November 14. **Dr. R. T. Tidrick,** head of the Department of Surgery at the SUI College of Medicine, spoke on "Acute Injuries and Infections of the Hand."

At the meeting of the Des Moines County Medical Society held at the Burlington Golf Club on November 13, **Dr. H. W. Schmidt**, of Rochester, Minnesota, spoke on "Esophagitis and Its Complications."

At the annual convention of the American Academy of Ophthalmology and Otolaryngology, in Chicago on October 19, **Dr. Dean M. Lierle,** of the SUI College of Medicine, was reelected secretary for instruction in otolaryngology and maxillofacial surgery.

Dr. M. E. Alberts, of Des Moines, was recently made a fellow of the American Academy of Pediatrics.



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Because of a mistake in the news release upon which the JOURNAL based its report, last month, of the elections that took place at the annual meeting of the Iowa Division of the American Cancer Society, it remains to be announced that **Dr. John K. MacGregor**, of Mason City, was elected to the Board of Directors as member-at-large.

Dr. William M. Spear, of Oakdale, was elected president of the Mississippi Valley Conference on Tuberculosis at that organization's recent meeting in Detroit. He will preside at the meeting in Omaha next fall.

Dr. Rolf F. Kruse, a urologist who recently began practice at Waterloo, received his residency training at Milwaukee County Hospital, rather than at the SUI College of Medicine as the JOURNAL mistakenly reported last month.

Dr. D. C. Conzett, of Dubuque, has been made a member of the AMA Committee on Federal Medical Services.

The Better Business Bureau of Des Moines has pointed out that Handicapped Children, Inc. is not a charitable organization, though its name might make one think so. Its owner, in Cincinnati, admits that it isn't. Also, the State Board of Nurses Examiners in Iowa asserts that it recognizes no correspondence training as a basis for candidates taking nurses' examinations in this state.

Dr. Thomas A. Ware, who recently completed a residency in radiology at the Veterans Administration Hospital in Des Moines, has entered practice in Sioux City.

Dr. James E. Bumgarner, a Des Moines urologist, has become a member of the medical faculty at the University of Missouri and will practice in Columbia.

Dr. Robert N. Larimer, of Sioux City, has been named by the speaker of the AMA House of Delegates to be a member of the Reference Committee on Reports of Officers.

At the December 4 meeting of the Wapello County Medical Society, to be held at the Ottumwa Hospital, **Dr. Kenneth E. Lister**, of Ottumwa, will speak on "Cancer of the Breast."

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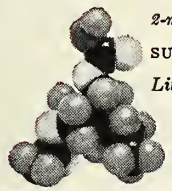
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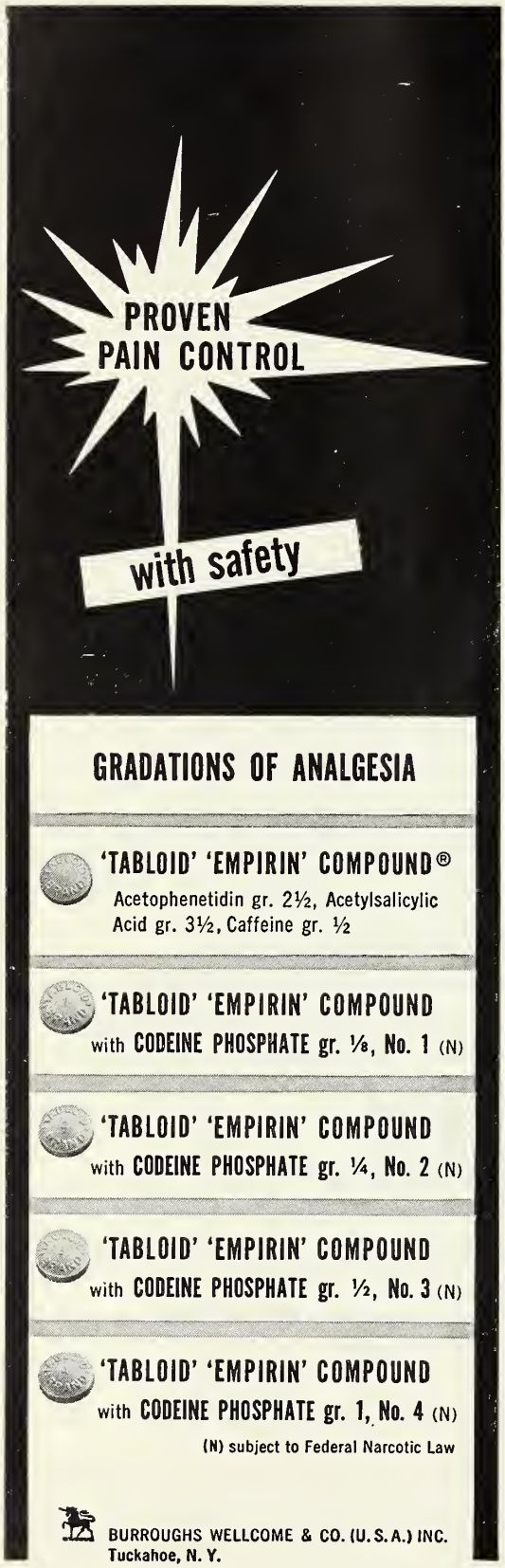
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A group of SUI scientists, including **Michael Bonfiglio, M.D.,** associate professor of orthopedic surgery, **Wayburn S. Jeter, Ph.D.,** assistant professor of bacteriology, and **Mr. William Ostrander,** graduate student in bacteriology, are experimenting with rabbits in an effort to determine whether injections from a prospective donor's skin will prepare the way for successful transplantation of skin from one individual to another. Though the results of their studies have so far been inconclusive, there are indications that in some grafts the dermis is "taking," after the preparatory injections. The epidermis is sloughing.

Dr. Edmund G. Zimmerer, state commissioner of health, has been elected to fellowship in the Royal Society of Health of Great Britain, an organization corresponding to the American Public Health Association.

On October 21, **Drs. John K. Uchiyama** and **Mary Louise Lyons** held open house in their new offices at 3701 Beaver Avenue, in Des Moines. **Dr. Stewart O. Olson,** who is in military service, will practice with them in the new building upon his return.

The Polk County Medical Society presented its second health forum in the KRNT Theatre, in Des Moines, on November 15. **Dr. A. G. Felter,** of Van Meter, was moderator; the physicians who served as panelists were **Dr. Paul T. Cash,** psychiatrist, **Dr. Ralph E. Dyson,** pediatrician, **Dr. Daniel A. Glomset,** gastroenterologist, and **Dr. E. Thomas Scales,** endocrinologist; **Drs. Edward R. Posner, Jr.** and **Mark D. Raverby** screened the questions submitted by the audience. **Mr. Ray Stewart,** public relations director for the Iowa State Medical Society, was in charge of production.

Mr. Stephen A. Milwid, of the Chicago law firm of Lord, Missell and Brook, will address the Scott County Medical Society on Tuesday evening, December 4, on the problems of malpractice. His firm works very closely with the AMA on this subject.

Dr. James S. Devine has been discharged from active duty with the Navy and has returned to his practice in Whittemore.

The speaker at the December 11 meeting of the Cerro Gordo County Medical Society, at the Hanford Hotel in Mason City, will be **Dr. R. G. Bunge,** professor of urology at the SUI College of Medicine.

Dr. Robert C. Hardin, professor of internal medicine at SUI, has been reappointed Iowa governor

for the American Diabetes Association for the 1956-1957 organizational year.

At the annual meeting of the North Central Medical Conference held in St. Paul on November 11, **Dr. Robert Parker,** of Des Moines, was honored as one of the founders of the organization and was given a citation acknowledging his service to it. Representatives from six states were in attendance.

DEATHS

Dr. Henry Francis Dolan, 63, who had served Anamosa since 1921, died at Mercy Hospital there on October 12. In October, 1955, he was honored as "Doctor of the Year" by the National Catholic Rural Life Conference.

Dr. David E. Beardsley, 77, a fellow of the American College of Surgeons and a Life Member of the Iowa State Medical Society who practiced for 50 years at Cedar Rapids, died suddenly at his home there on October 29. The cause of his death was heart disease.

Dr. Alexander Steele Beatty, 81, of Creston, a Life Member of the Iowa State Medical Society, died on October 23, a few hours after suffering a heart attack at his office.

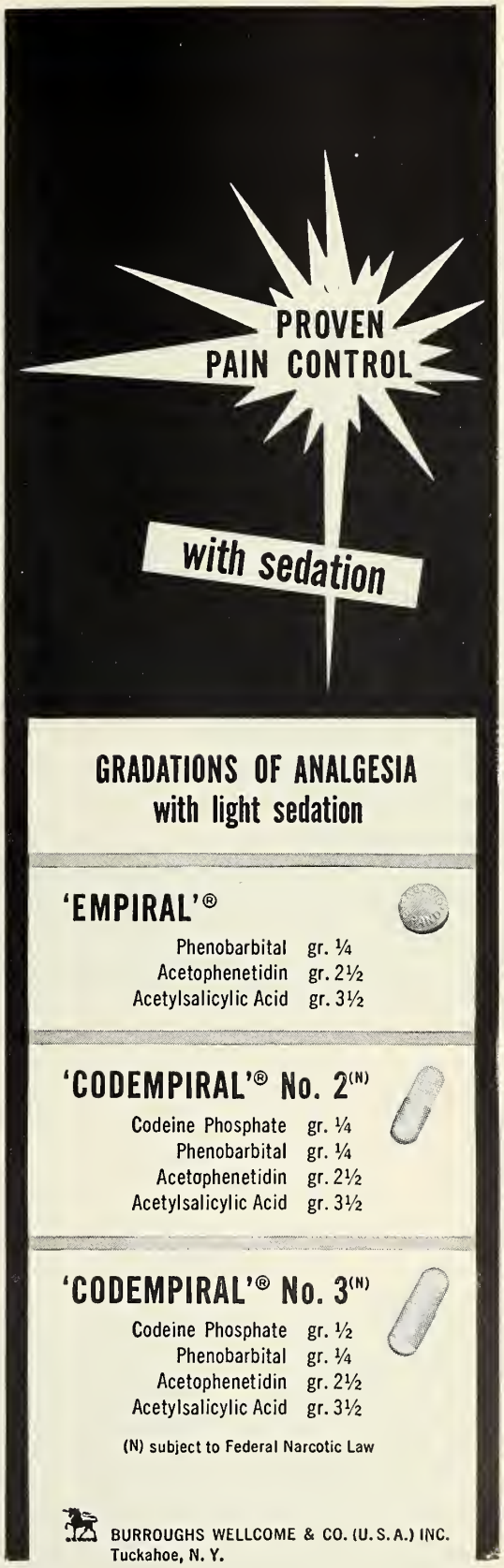
Dr. Edward H. Files, 58, a Cedar Rapids general practitioner, was found dead in his office at 6:45 p.m. on October 24, following what apparently had been a heart attack. He had practiced there since 1930.

Dr. Garfield M. Thein, 72, who had maintained an EENT practice at Oelwein for 35 years, died at his home there on October 31.

Dr. Edwin Ginn Barton, 82, of Ottumwa, a Life Member of the Iowa State Medical Society, died at St. Joseph Hospital there, on October 10.

Dr. Burlin E. Keen, 62, who had practiced general medicine for 28 years in the Beaverdale section of Des Moines, died of abdominal hemorrhage at Methodist Hospital, Rochester, Minnesota, on October 10.

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LOS ANGELES

Mahaska County Society Celebrates Centennial



At the Mahaska County Medical Society's centennial observance, in Oskaloosa on November 2, were (seated) Drs. Fred Sternagel, Walter L. Bierring, E. B. Wilcox, P. M. Day and F. A. Gillett; (standing) Drs. Joseph Lederman, G. E. Bartlett, Richard E. H. Phelps, George S. Atkinson, Howard C. Bos, G. H. Clark, Robert Alberti, Kenneth Lemon, R. M. Collison, Keith Campbell, Sidney Smith, L. F. Catterson, Walter Campbell, G. W. Bennett and F. O. W. Voigt.

Dr. Walter L. Bierring, of Des Moines, was principal speaker, and Dr. Fred Sternagel, of West Des Moines, president-elect of the Iowa State Medical Society, was a guest at a banquet in the Downing Hotel, Oskaloosa, on November 2, 1956, which marked the centennial of the Mahaska County Medical Society. Eighteen Mahaska County doctors and their wives attended.

Dr. Bierring, an 1892 graduate of the medical school at the State University of Iowa and a former state commissioner of health, recalled the Mahaska doctors whom he has known. One of them was Dr. H. C. Huntsman, an 1851 graduate of the University of Michigan college of medicine, who practiced in the county and later became president of the Iowa State Medical Society.

Another doctor that he mentioned was Dr. Mark F. Boyd, who left Oskaloosa to study at Harvard and who later became an international authority on malaria. Dr. Bierring said that a great many physicians who served Mahaska County at one time or another have been a credit to Iowa medicine.

Dr. Sternagel, after having been introduced by Dr. Kenneth Lemon, president of the Mahaska County Society, conveyed congratulations from the State Society and said that he hoped other county groups in Iowa would take pains to commemorate their hundredth anniversaries as Mahaska County was doing.

The County's oldest physicians, Dr. G. E. Bartlett, of New Sharon, and Dr. E. B. Wilcox, of Oskaloosa, told of their experiences in the horse-and-buggy days of medical practice, and Dr. F. A. Gillett, who first practiced at Fremont, from 1915 until 1918, and has practiced in Oskaloosa since then, was singled out for special recognition.

Members of the Woman's Auxiliary to the Mahaska County Medical Society had arranged the table decorations, which consisted of antique patent medicine bottles and flower arrangements in antique ointment jars. In addition, there was a display of the saddle bags in which pioneer doctors carried their equipment and medicines, and an antique music box that had belonged to the late Dr. C. E. Vance, of Eddyville. An open house at the home of Dr. and Mrs. Lemon preceded the banquet.

ILLINOIS CONGRESS ON MATERNAL CARE

The first Illinois Congress on Maternal Care, sponsored by the newly formed Illinois Committee on Maternal Welfare, will be held at the Hotel St. Nicholas, in Springfield, Illinois, February 13-14, 1957.

The Illinois Committee on Maternal Welfare is a pilot program of the American Committee on Maternal Welfare designed to invite the most active participation of the professions concerned. Those who are interested, and who will attend the Congress, include general practitioners; obstetricians; pediatricians; anesthesiologists and nurse anesthetists; obstetric, pediatric and public health nurses; hospital administrators; medical social workers; nutritionists; and others. More than 25 health-service organizations in Illinois are cooperating in the project. Copies of the program can be secured from the Committee's office, 116 South Michigan Avenue, Chicago.



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IOWA DOCTOR IS ON NEW FEDERATION COMMITTEE

Dr. Frank R. Peterson, a Cedar Rapids surgeon, is one of five physicians who have been appointed to a recently established standing committee of the Federation of State Licensing Boards. As Dr. Peterson explains it, this new group will attempt to secure uniformity among the licensure examinations that are given throughout the United States, as regards both content and quality, thus obviating the many obstacles that now interfere with the establishment of reciprocity agreements.

He says that the committee has no intention of preparing examinations to be given by the state licensing boards in the various states. Rather, he says, "We plan to establish institutes in various areas from time to time in an effort to improve the quality of examination questions, and we hope to assist in the development of examinations that will test the logic, the honesty and the dependability of candidates, in addition to measuring the medical knowledge that they possess."

At present, Dr. Peterson says, the committee of which he is a member does not expect that it will be called upon to help assess the qualifications of graduates from foreign medical schools. For the time being, its aim is to work for uniformity of requirements, laws and mechanics in licensing.

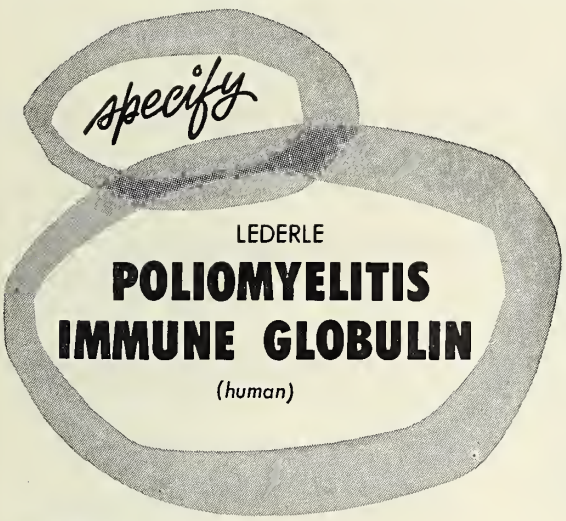
"MEDICAL WITNESS" FILM SERIES

The first in a new AMA series of films "The Medical Witness" received its premiere showing at the Clinical Session in Seattle on November 27. It is now to be made available for showings to medical societies, bar associations and other professional groups throughout the country.

"The Medical Witness" is a 30-minute, black-and-white 16 mm. film on the right and the wrong methods of presenting medical testimony. It is being produced by William S. Merell Company, of Cincinnati, an ethical pharmaceuticals manufacturer.

Stressing the "vital importance of these films to all doctors and lawyers," Mr. C. Joseph Stetler, head of the AMA Law Department, said: "Medical testimony is required today in from 60 to 85 per cent of all cases litigated. . . . Our central purpose in all of these films is to acquaint doctors and lawyers with each other's professional, procedural and ethical problems in litigation and other areas where the two professions come into contact."

Medical societies wishing to arrange for showings of "The Medical Witness" and later films in the series, may write to the AMA Film Library, 535 North Dearborn Street, Chicago 10, Illinois.



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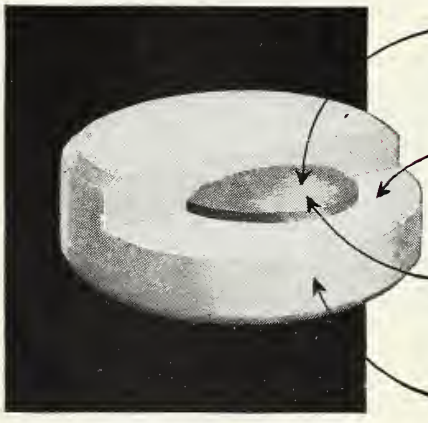
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NATIONAL DISEASE AND THERAPEUTIC INDEX

Dr. Gerald E. Tracy, a resident in pediatrics at the Raymond Blank Memorial Hospital, Des Moines, is local coordinator for the National Disease and Therapeutic Index, a project for providing continuous statistical information, in 27 areas throughout the country, on why patients see doctors and on the types of treatment they receive.

The editors of JAMA, on November 3, commented favorably upon the project, and said: "Liaison has been established with the Bureau of Economic Research of the AMA to assure that that organization will be prepared to receive and utilize such data as may, after careful analysis and evaluation, be available." The full research facilities of Taylor, Harkins and Lea, Inc., Philadelphia, have been utilized in the organization, development and operation of the survey.

Some 900 doctors in 27 statistically selected, representative areas throughout the country—of which Des Moines and its environs is one—are each making a full report of all patients seen during a consecutive two-day period once each quarter. The project has now been under way for approximately six months.

Eventually, it is expected that the National Disease and Therapeutic Index will provide aid to (1) medical investigators in determining the directions to be taken and the goals to be sought in research; (2) practicing doctors, particularly in their efforts in preventive medicine; (3) health organizations in planning new programs, or in revising or abandoning old ones; and (4) pharmaceutical manufacturers in research and product development.

Because of the vast scope of the program, it will be some time in the latter part of 1957 before data can be processed and evaluated to determine what may be of benefit to the various segments of the profession.

Dr. Tracy and the other 26 coordinators have been appointed to supervise the program in their respective geographical areas. Their function is to assist in enlistment work and scheduling of reporting dates and to do preliminary coding of diagnoses according to the Manual of International Statistical Classification of Diseases, Injuries and Causes of Death (a catalog adopted by the World Health Organization in 1948). The reporting doctors are encouraged to use the terminology of the Standard Nomenclature of Diseases and Operations in recording their diagnosis.

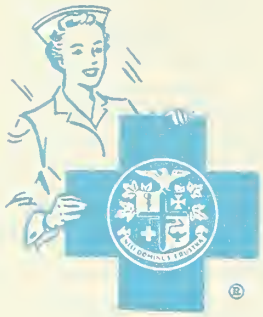
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Bateman, R. D., Iowa City
(Keesler Field, Mississippi) .....Capt., U.S.A.F.
Berndt, Allen E., Cedar Rapids
(Montgomery, Alabama) .....Maj., U.S.A.F.
Blaha, Vernon B., Marshalltown
(U.S. Naval Hospital, Argentia Bay, Newfoundland)
.....Commander, U.S.N.R.
Bogle, W. C., Marion
(Minneapolis, Minnesota) .....Lt., U.S.N.R.
Conoan, Eduardo A., Dow City
(Marine Corps Recruit Depot, San Diego, Calif.) .....Lt.(j.g.), U.S.N.R.
Day, R. T., Hampton
(10th Tactical Hospital, USAFE, APO 123, New York City) .....Capt., U.S.A.F.
Dow, Edward F., Des Moines (Sierra Ordnance Depot, Helong, California)....Lt., A.U.S.
Eckberg, R. A., Hubbard
(Laredo AFB, Texas) .....Capt., U.S.A.F.
Elmer, Norman J., Strawberry Point .....U.S.N.
Goldstein, M. S., Iowa City .....A.U.S.
Hach, Felix, Ankeny
(Cassel Sub Area, 7811 AVHG, APO 171, New York)
.....Capt., A.U.S.
Haskell, J. G., Reinbeck
(U.S.A.H., Ft. Riley, Kansas) .....
Heffron, John F., Anamosa
(Omaha, Nebraska) .....1st Lt., U.S.A.F.
Howe, G. W., Iowa City
(Grosse Isle, Michigan) .....N.A.S.
Johnston, T. L., Iowa City
(Qtrs. 12, Warren AFB, Cheyenne, Wyo.) .....
Keil, P. G., Des Moines
(Maxwell AFB, Alabama) .....Lt. Col., U.S.A.F.
Lake, Carlton B., Sumner
(Ft. Sam Houston, Texas) .....A.U.S.
Lyman, Frank L., Jr., Fort Madison
(U.S. Naval Hosp., Beaufort, S. C.) ....Lt., U.S.N.R.
McCoy, John T., Cedar Falls
(U.S. Naval Hosp., Philadelphia, Penn.) Lt., U.S.N.R.
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.....Lt. A.U.S.
Rogers, Edward A., Anamosa
(U.S.P.H.S. Hospital, Seattle) .....
Sacco, Severino O., Iowa City
(Phoenixville, Penna.) .....
Sear, John, Alden
(Box 6254, Fitzsimons Army Hosp., Denver 8)
.....1st Lt., A.U.S.
Severson, Wayne L., Slater (Greater Pittsburgh Airport, Coraopolis, Penna.)...Capt., U.S.A.F.
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For the ninth consecutive year, the Iowa Division of the American Cancer Society will award 50 nursing scholarships to Iowa young women. First in the nation to set up such a program, the Iowa Division now has 140 nurse trainees attending 24 nursing schools in the state. In addition, 240 nurses granted scholarships in 1949 through 1953 have been graduated.

The awards cover tuition, fees, books and uniforms (but not to exceed $500) for three full years of training. The applicant must (1) rank in the top third of her high school graduating class; (2) be at least 17 years of age at date of entrance to nursing school; (3) pass pre-nursing tests; (4) be approved by an Iowa nursing school; (5) promise to practice nursing in Iowa for two years immediately following graduation; (6) need financial assistance; and (7) possess personal qualities essential to a good nurse. Judging is on the basis of 100 points, of which 45 are awarded on the basis of the applicant's need of financial assistance, 45 are awarded for scholarship, and 10 are for the quality of the applicant's appearance, letter of application, and original essay.

The deadline for applications is March 25, 1957. Prospective candidates should write to the Iowa Division's office in Mason City for further information.

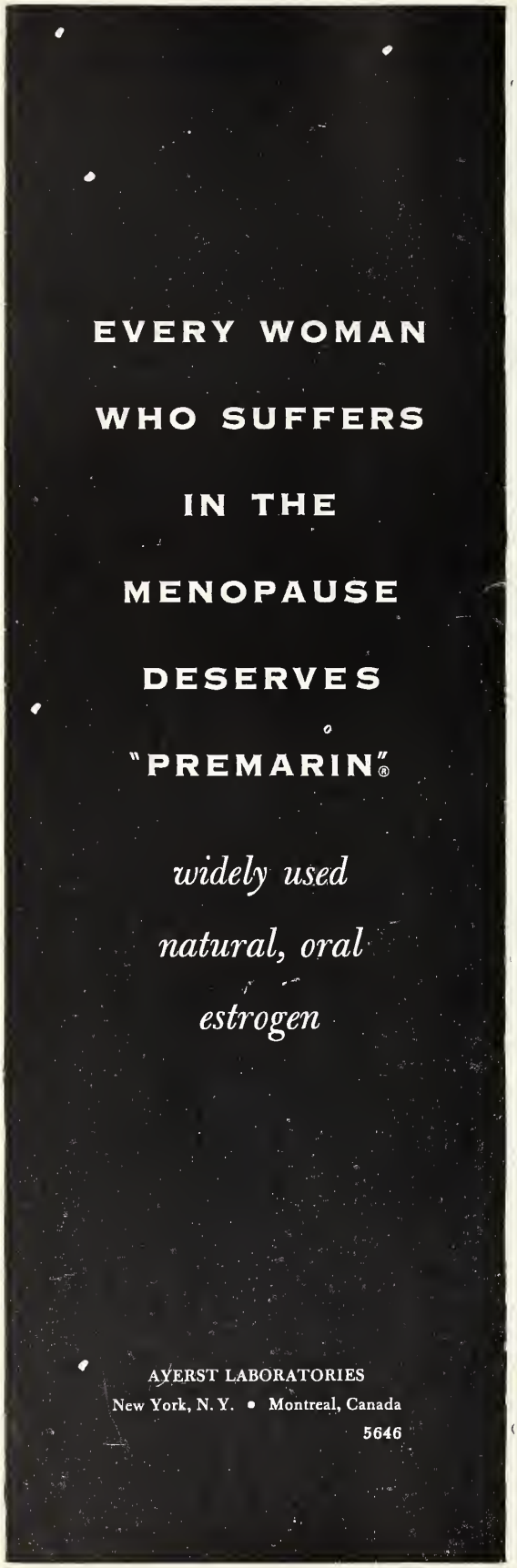
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Thursday at 11:15 a.m.

"CHATS WITH THE CHAMPS"

December 6 Sprints and Hurdles—Track and Field
December 13 .... Wrestling and Weight Lifting
December 20 ..... Golf
December 27 Middle Distance Runs—Track and Field

WSUI—Iowa City, Iowa
Monday at 3:30 p.m.

"WELL AT WORK"

December 3 ..... The Handicapped Worker
December 10 Major Job Problems—Job Reassignment
December 17 ..... Occupational Disease Control
December 24 ..... Alcoholism in Industry
December 31 ..... Women in Industry

TELEVISION

KGLO-TV—Mason City, Iowa
Tuesday at 3:30 p.m.

December 11 ..... Rh Factor
December 25 ..... Convalescent Home

KTIV-TV—Sioux City, Iowa
Saturday at 12:00 noon

December 1 ..... Anesthesiology
December 8 ..... High Blood Pressure
December 15 ..... Rh Factor
December 22 ..... Baby Care
December 29 ..... Convalescent Home

KQTV—Fort Dodge, Iowa
Wednesday at 9:00 p.m.

December 5 ..... Pediatric Heart Surgery
December 12 ..... Anesthesiology
December 19 ..... High Blood Pressure
December 26 ..... Rh Factor

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:30 p.m.

December 2 ..... Nervous Breakdown
December 9 ..... Hospital Emergency Care
December 16 ..... Pediatric Heart Surgery
December 23 ..... Anesthesiology
December 30 ..... High Blood Pressure

KWWL-TV—Waterloo, Iowa
Tuesday at 11:30 a.m.

December 4 ..... Later Years
December 11 ..... Varicose Veins
December 18 ..... Psychiatry

The foregoing schedules are subject to change at the discretion of the station managers.

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of the

Iowa State Medical Society

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In the more than 12,000 cases treated with 'Compazine' here and abroad, and in experimental studies at very high dosage, no blood change or jaundice attributable to 'Compazine' was observed.

Smith, Kline & French Laboratories, Philadelphia 1

*Trademark for proclorperazine, S.K.F.

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